HISTORY

Model Name : KV-AR29T80C/AR29X80C
SERVICE MANUAL
Part No. : 9-XXX-XXX-01

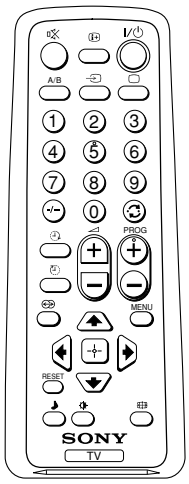
When clicking an item, it's detail is displayed.

Date	SUPP./CORR.	Description of SUP/COR	Change of main text
2004.06		NEW	–

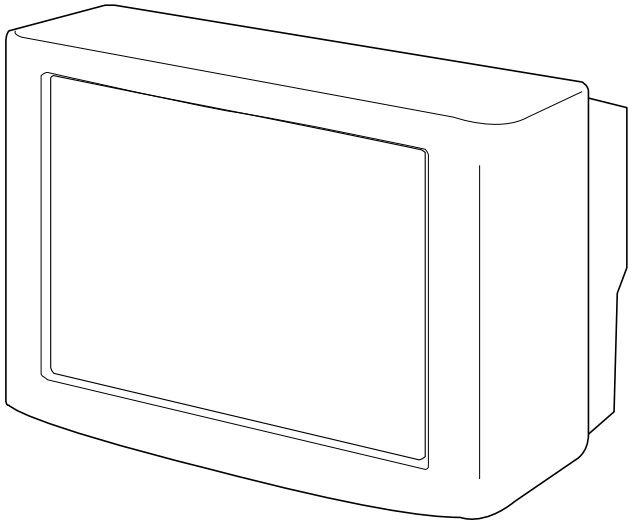
SERVICE MANUAL BY-1A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-AR29T80C	RM-W104	China	SCC-M35A-A
KV-AR29X80C	RM-W104	China	SCC-M35B-A

MODEL	COMMANDER	DEST.	CHASSIS NO.



RM-W104



KV-AR29T80C/AR29X80C

TRINITRON® COLOR TV

SONY®

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESECOMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFEOPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

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• U Board 64

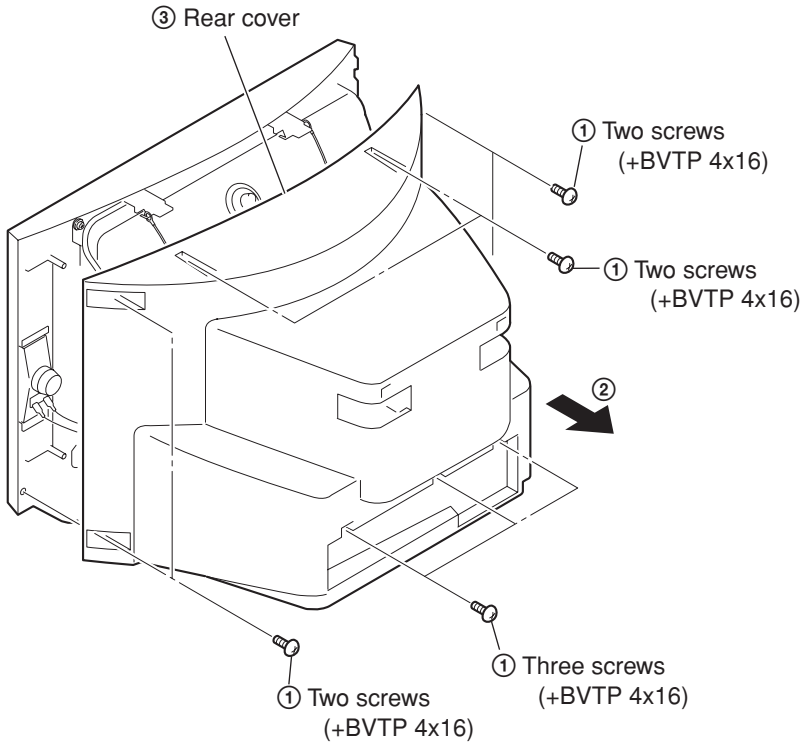
SECTION 1
SPECIFICATIONS

	KV-AR29T80C KV-AR29X80C	Note
Power requirements	220 V AC, 50 Hz	
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, NTSC3.58, NTSC4.43	
Channel coverage		
B/G	VHF : E2 to E12 UHF : E21 to E69 CATV : S01 to S03, S1 to S41	
I	UHF : B21 to B68 CATV : S01 to S03, S1 to S41	
D/K	VHF : C1 to C12, R1 to R12 UHF : C13 to C57, R21 to R60 CATV : S01 to S03, S1 to S41, Z1 to Z39	
M	VHF : A2 to A13 UHF : A14 to A79 CATV : A-8 to A-2, A to W+4, W+6 to W+84	
(Antenna)	75-ohm external terminal	
Audio output (Speaker)	7 W + 7 W (6 W + 6 W for 7% distortion)	
Number of terminal		
(Video)	Input: 3 Output: 1 Phono jacks; 1 Vp-p, 75 ohms	
(Audio)	Input: 3 Output: 1 Phono jacks; 500 mVrms	
(S Video)	Input: 1 Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	
(Component Video)	Input: 1 Phono jacks; Y: 1 Vp-p, 75 ohms, sync negative C_B: 0.7 Vp-p, 75 ohms C_R: 0.7 Vp-p, 75 ohms Audio: 500 mVrms	
Picture tube	29 type	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimensions (w/h/d, mm)	765 x 578 x 502	
Mass (kg)	48	

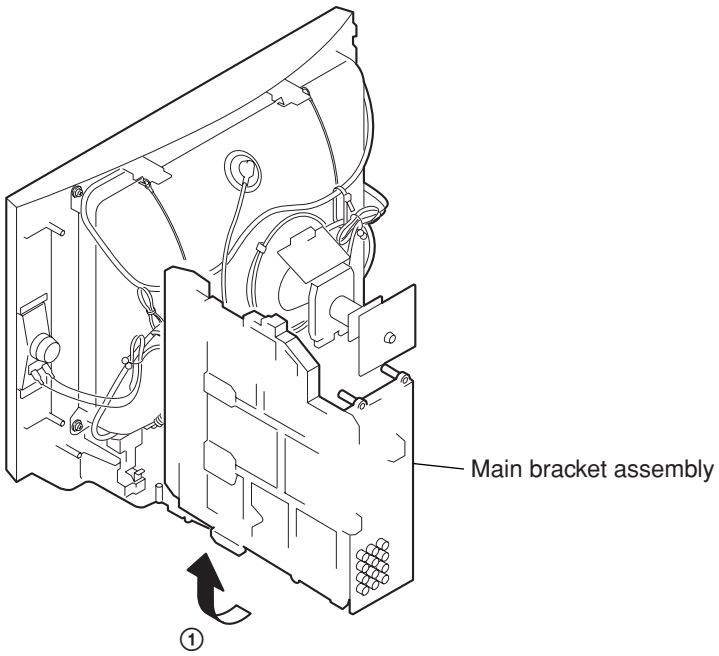
Design and specifications are subject to change without notice.

SECTION 2
DISASSEMBLY

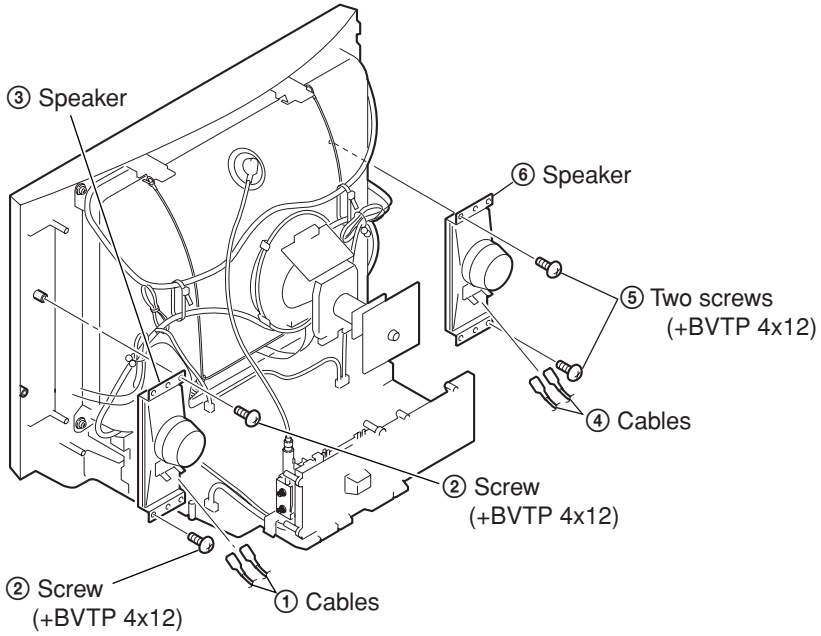
2-1. REAR COVER



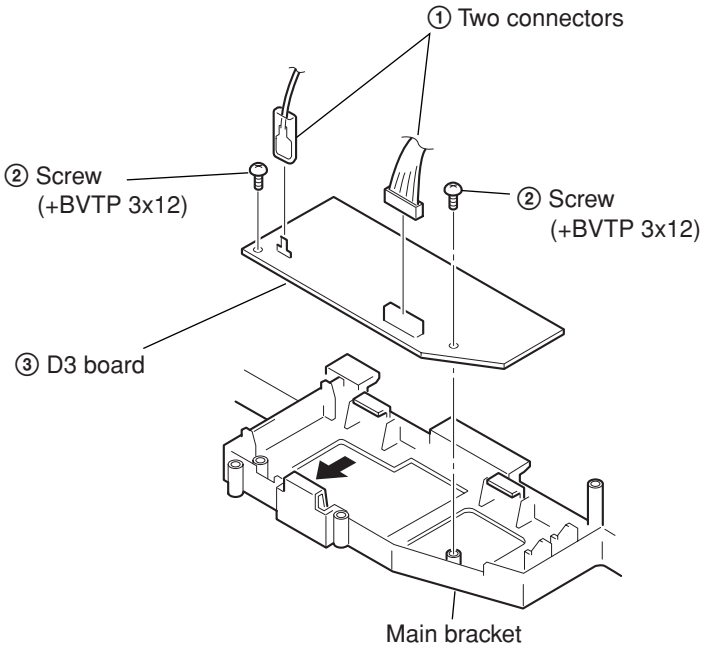
2-2. SERVICE POSITION



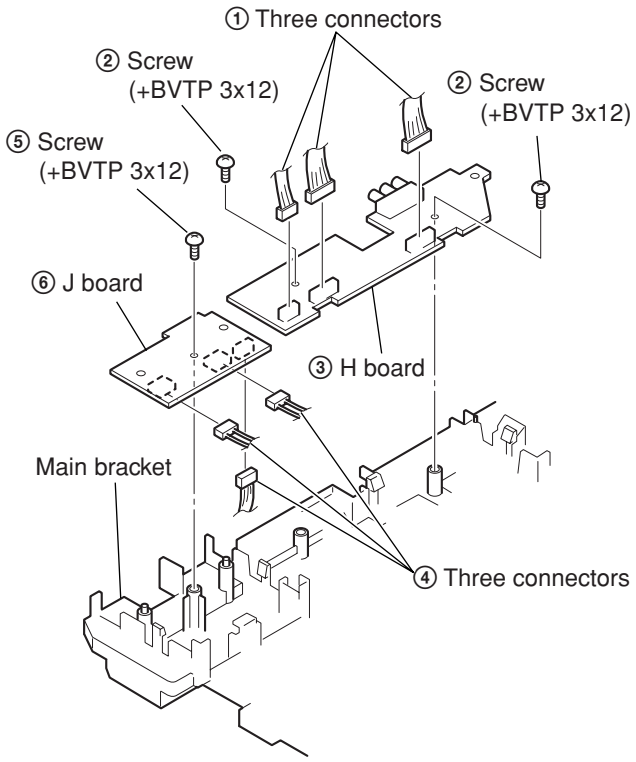
2-3. SPEAKERS



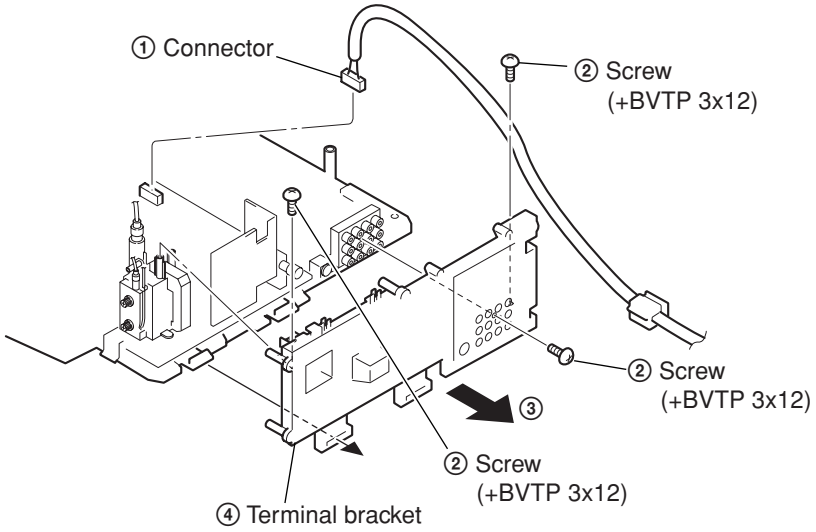
2-4. D3 BOARD



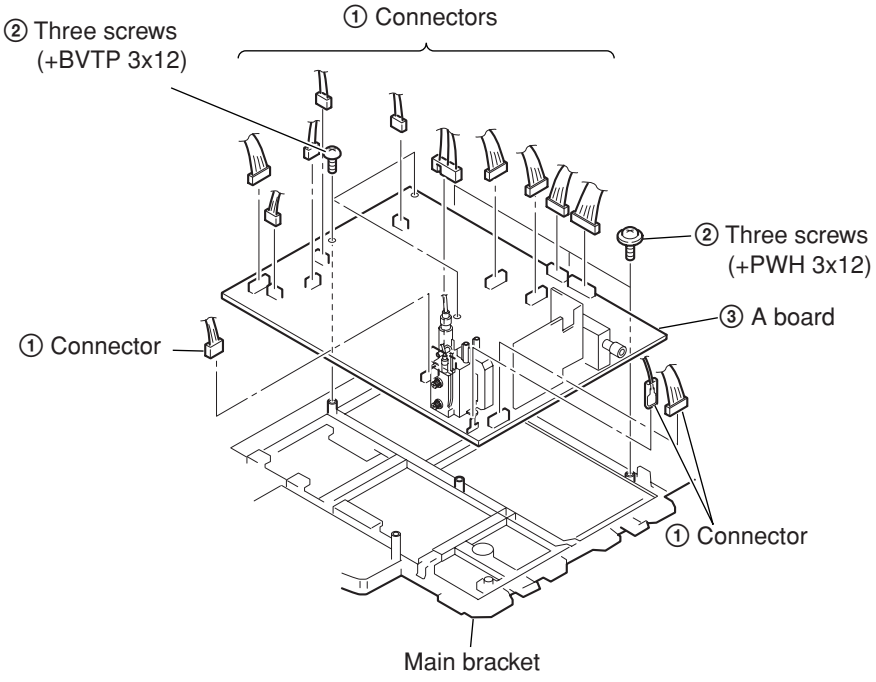
2-5. H, J BOARDS



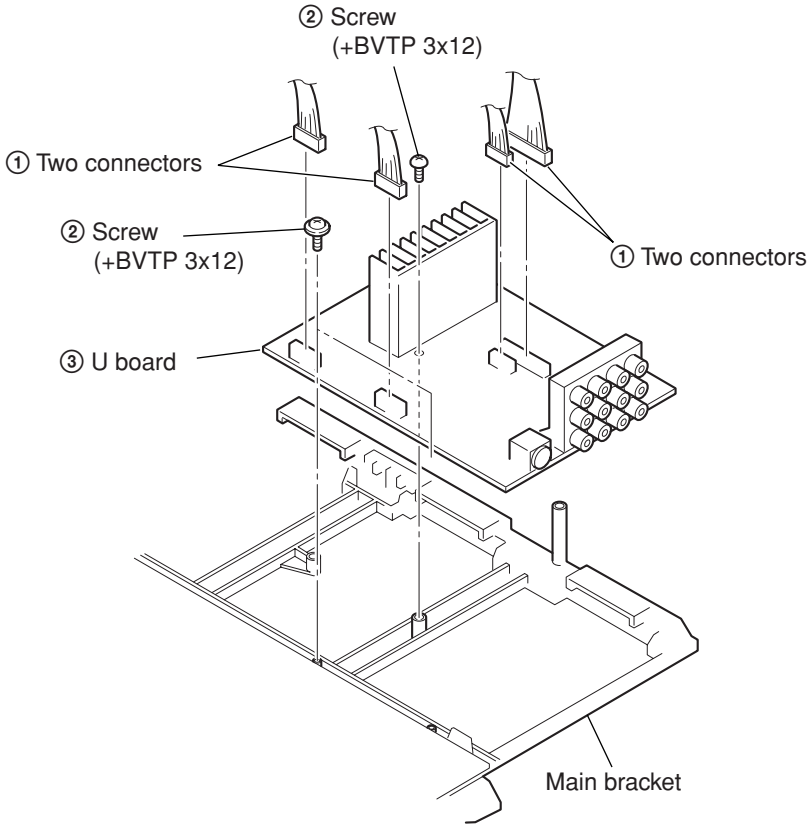
2-6. TERMINAL BRACKET



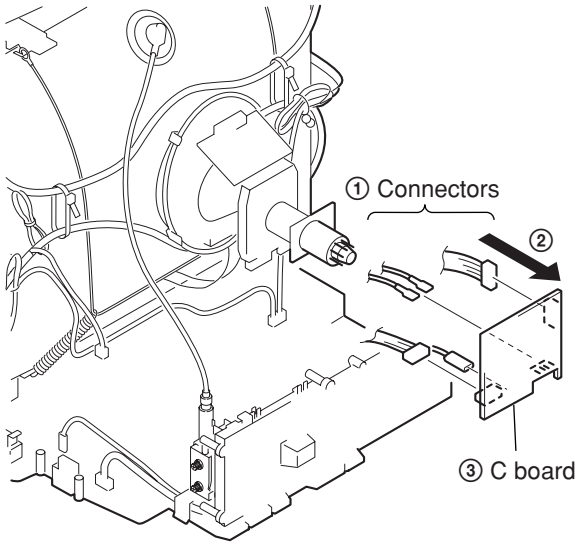
2-7. A BOARD



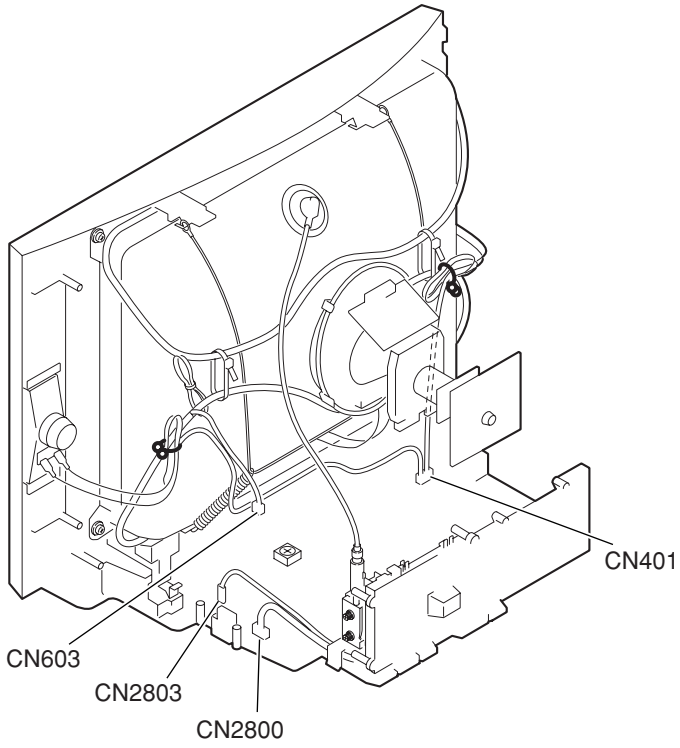
2-8. U BOARD



2-9. C BOARD



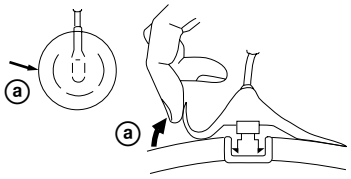
2-10. HARNESS ARRANGEMENT



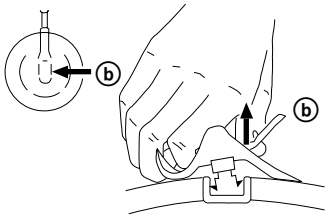
2-11. REMOVAL OF ANODE-CAP

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

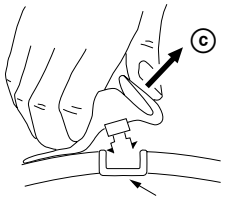
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



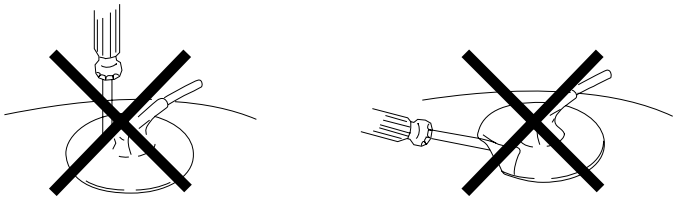
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ.

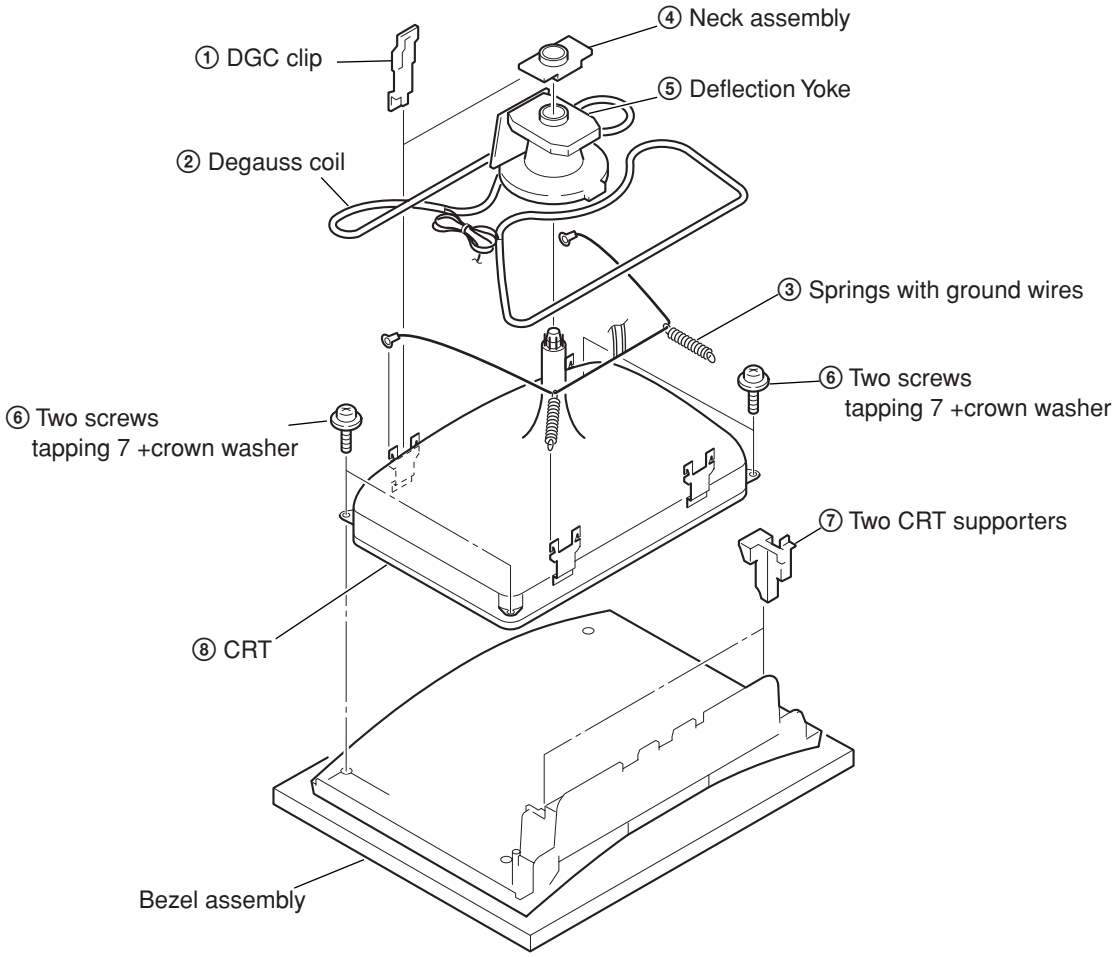
• HOW TO HANDLE AN ANODE-CAP

① Do not damage the surface of anode-caps with sharp shaped objects.
② Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.
③ Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.



2-12. CRT

NOTE: After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.



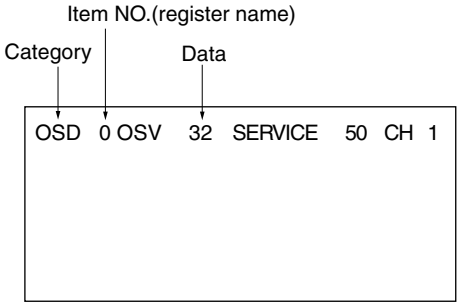
SECTION 3
SERVICE MODE

3-1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

SERVICE MODE PROCEDURE

1. Standby mode. (Power off)
2. [i+] → [5] → [(+)] → [I/⏻] on the Remote Commander.
   (Press each button within a second.)

3-2. SERVICE MODE ADJUSTMENT



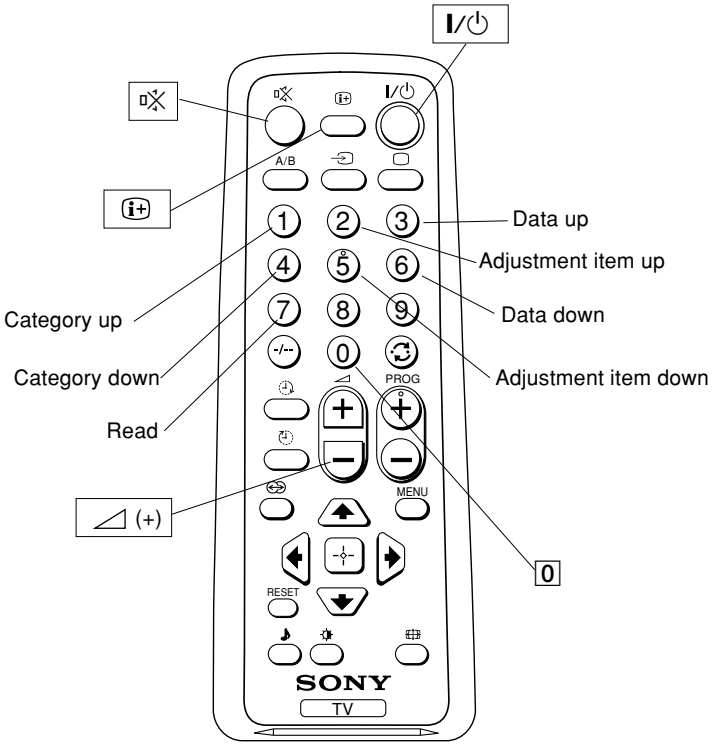
3. The SCREEN displays the item being adjusted.
4. Press [1] or [4] on the Remote Commander to select the adjustment item.
5. Press [3] or [6] on the Remote Commander to change the data.
6. Press [2] or [5] on the Remote Commander to select the category.
7. If you want to recover the latest values press [7] then [0] to read the memory.
8. Press [MUTING] then [0] to write into memory.
9. Turn power off.

Note: Press [8] then [0] on the Remote Commander to initialize or turn set off and on to exit.

3-3. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, turn power off with the remote commander.
2. Turn power on and set to Service Mode.
3. Call the adjusted items again and confirm they were adjusted.

3-4. ADJUSTING BUTTONS AND INDICATOR



RM-W104

3-5.SERVICE LIST

AP

Functionality		Range	Standards	Function	Remarks
No.	Name				
0	SUBV S-OFF	0 - 3	02	Sub volume surround off	
1	SUBV S-SIMU	0 - 3	02	Sub volume stereo	
2	SUBV S-ON	0 - 3	00	Sub volume surround on	
3	BASS	0 - 15	*1	Bass control	
4	TREBLE	0 - 7	*1	Treble control	
5	SURROUND	1 - 2	*1	Surround control	

Standards *1

No.	ITEM	Standards						
		PERSONAL	TV-DYNAMIC	TV-DRAMA	TV-SOFT	AV-DYNAMICE	AV-DRAMA	AV-SOFT
3	BASS	7	12	10	9	12	10	9
4	TREBLE	3	6	5	4	6	5	4

DEF1

Functionality		Range	Standards		Function	Remarks
No.	Name		50Hz	60Hz		
0	H-PARALLEL	0 - 63	15	15	Horizontal parallelogram	
1	H-BOW	0 - 63	1B	19	Horizontal bow	
2	H-SHIFT	0 - 63	25	2C	Horizontal shift	
3	H-WIDTH	0 - 63	2A	2A	EW width	
4	H-PARABOLA	0 - 63	15	18	EW parabola	
5	H-U.CORNER	0 - 63	19	1F	EW upper corner parabola	
6	H-L..CORNER	0 - 63	16	1D	EW lower corner parabola	
7	H-TRAPE	0 - 63	28	29	EW trapezium	

DEF2

Functionality		Range	Standards		Function	Remarks
No.	Name		50Hz	60Hz		
0	V-SLOPE	0 - 63	2B	2B	Vertical slope	
1	V-AMPL..	0 - 63	38	3C	Vertical amplitud	
2	V-S.CORR	0 - 63	1C	24	Vertical s correction	
3	V-SHIFT	0 - 63	20	20	Vertical shift	

OP0

Functionality		Range	Standards	Function	Remarks
No.	Name				
0	FMWS	0 / 1			
1	IF AGC SPEED	NORM / 0.7◊NORM / 3◊NORM / 6◊NORM	83		
2	Blue SCREEN	1 / 0	83		
3	FOAB	NORM/SLOW/SLOW FAST/FAST	83		
4	FORFS	LAST FIELD FREQUENCY/ATUO 50HZ IF NO SYNC/AUTO 60HZ IF NOSYNC/60HZ	83		
5	RP010	1:1.8/1:1/1:1.25/1:1.5	BE		
6	EVG	OK/NO	BE		
7	DSK	DYNAMIC SKIN OFF/DYNAMIC SKIN ON	0F		
8	HCO	EHT ON VERTICAL/EHT ON VERT. AND HORI.	0F		

OP1

Functionality		Range	Standards	Function	Remarks
No.	Name				
0	SOUND SYSTEM	I DK / M I DK / BG I DK / M BG I DK	0F		
1	VIDEO MUTE	YES / NO	0F		
2	SVM	YES / NO	0F		
3	COMB FILTER	YES / NO	0F		
4	UOC VOLUME	0 - 63	33		

OP2

Functionality		Range	Standards	Function	Remarks
No.	Name				
0	NVM WRIGHT	0/1			
1	AUTO-SHUTOFF	OK/NO	BE		
2	WOOFER	OK/NO	BE		
3	AVL	ON/OFF	BE		
4	OVERSCAN TIME:	000MS - 310MS	00		

VP

Functionality		Range	Standards	Function	Remarks
No.	Name				
0	Y-DELAY	0 - 15	*1	Y delay	
1	AGC-TAK	0 - 63	1F	AGC voltage adjustment	
2	CATHODE	0 - 15	05	Cathode voltage adjustment	
3	SUB-COL	-15 - +15	*2	Sub color adjustment	
4	SUB-BRT	-15 - +15	*2	Sub brightness adjustment	
5	SUB-HUE	-15 - +15	*2	Sub HUE adjustment	
6	SUB-SHP	-15 - +15	*2	Sub sharpness adjustment	

Standards *1

No.	ITEM	Standards			
		NON FRONT-END	PAL	NTSC 4.43	NTSC 3.58
0	Y-DELAY	03	03	03	03

Standards *2

No.	ITEM	Standards					
		TV PAL	TV NTSC	AV PAL	AV NTSC	DVD PAL	DVD NTSC
3	SUB-COL	0A	09	09	07	08	0D
4	SUB-BRT	0E	0E	11	11	10	10
5	SUB-HUE	0F	0E	0F	0E	0F	0F
6	SUB-SHP	05	05	17	17	17	17

WB

Functionality		Range	Standards				Function	Remarks
No.	Name		TV/AV DYAMIC	DVD DYNAMIC	TV/AV OTHER	DVD OTHER		
0	RCT	0 - 63	1D	1E	1E	1E	Black level offset R	
1	GCT	0 - 63	1A	1C	1C	15	Black level offset G	
2	RDR	0 - 63	21	2C	2C	26	Red gain	
3	GDR	0 - 63	21	28	28	23	Green gain	
4	BDR	0 - 64	28	25	25	1F	Blue gain	
5	RGBOFF	ON/OFF					RGB on/off	

SECTION 4
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:
PICTURE control ..... normal
BRIGHTNESS control..... normal

Perform the adjustments in the following order :
1. Beam Landing
2. Convergence
3. Focus

Note : Test Equipment Required.
1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Preparation :
- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

4-1. BEAM LANDING

1. Input a white signal with the pattern generator.
   Contrast
   Brightness } normal
2. Position neck assy as shown in Fig4-1.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side. (See Figures 4-1 through 4-3.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 4-2.)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.

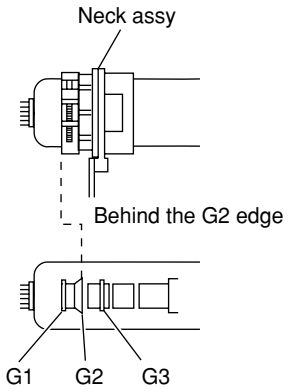


Fig. 4-1

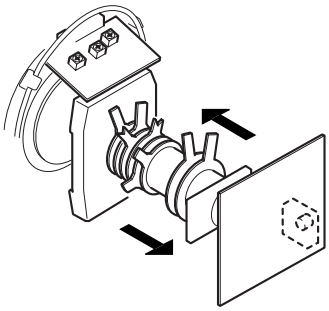


Fig. 4-2

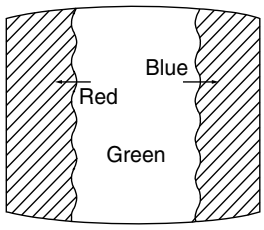


Fig. 4-3

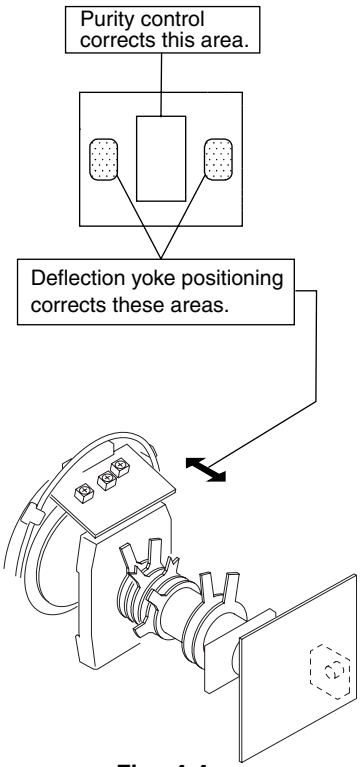


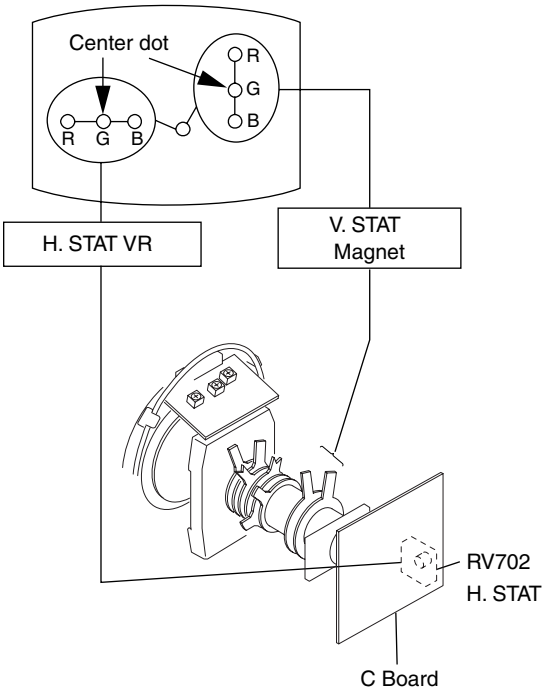
Fig. 4-4

4-2. CONVERGENCE ADJUSTMENT

Preparation :

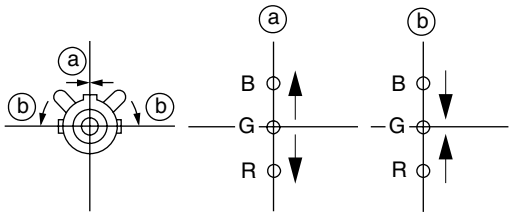
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Set the Picture Mode to “STANDARD”.
- Cross hatch / Dot pattern.

4-2-1. Horizontal and Vertical Static Convergence

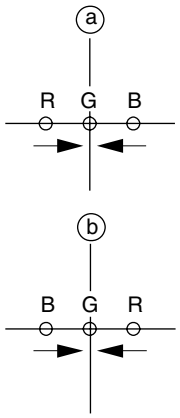


1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)

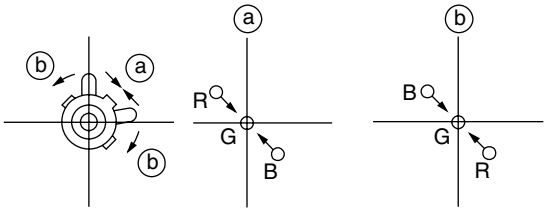
① V. STAT

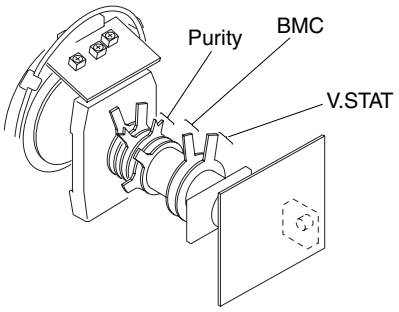


② H. STAT VR

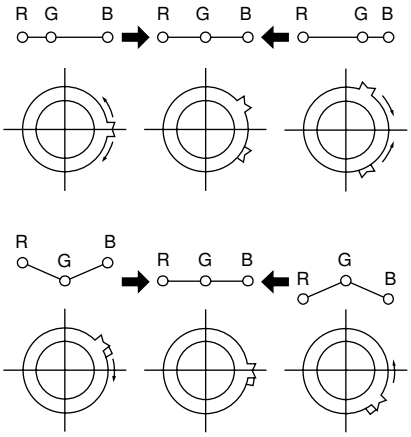


③



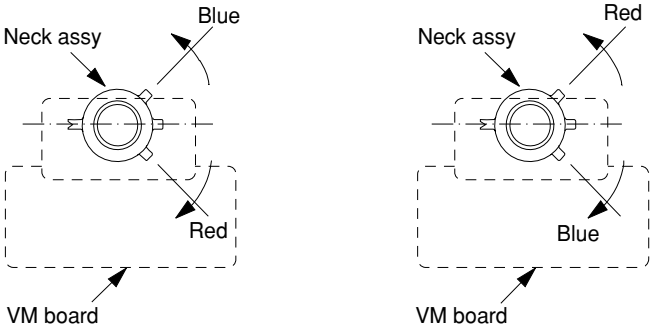


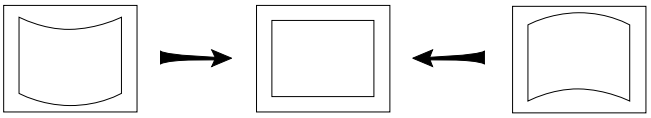
④ BMC (Hexapole) Magnet.
If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.



⑤ Y separation axis correction magnet adjustment.

1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .
2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.

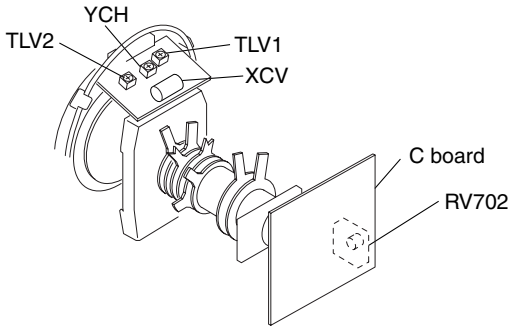




Note
1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

4-2-2. Dynamic Convergence Adjustment
Preparation:
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence
- Set the PICTURE and BRIGHTNESS to normal.

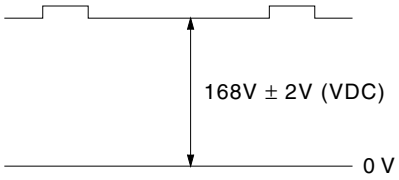
1. Adjust XCV core.
To able to become balance of XCV on the X axis well.
2. Adjust V-TILT.
Correct the vertical mis-convergence of red and blue of vertically sides on the Y axis.
3. Adjust YCH.
Adjust horizontal mis-convergence of red and blue of vertically sides on the Y axis. Mentioned above steps 2 to 4 are adjusting respectively perform minuteness tracking.



4-3. G2 (SCREEN) ADJUSTMENT

1. G2 (SCREEN) ADJUSTMENT

1) Set to zoom mode and the PICTURE and BRIGHTNESS to normal and to the service mode.
2) In put monoscope signal.
3) Set the service data. CXA2150P-210: ABLK10
4) Connect R, G and B of the C board cathode to the oscilloscope.
5) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
6) Whilst watching the picture, adjust the screen VR located on the flyback transformer to the point just before the flyback return lines disappear (to the point before cut-off)

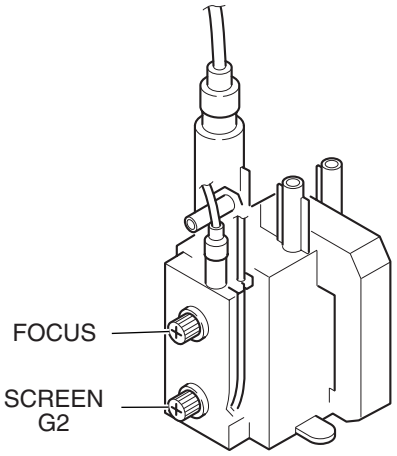


4-4. FOCUS ADJUSTMENT 1

Note

Focus adjustment should be completed before W/B adjustment.

(1) Receive digital monoscope pattern.
(2) Set DRC-MF to "Progressive" and PICTURE to "Standard".
(3) Adjust FOCUS VR so that the center of the screen becomes justfocus.



FLYBACK TRANSFORMER (T502)

4-5. NECK ASSY TWIST ADJUSTMENT

(1) Receive dot/hatch pattern.
(2) Turn FOCUS VR fully counter-clockwise.
(3) Confirm the dot shape at the screen center. (Fig. 4-5)
(4) Resume FOCUS VR.

Note

In case of turning NECK ASSY, loosen the screw 3 turns. Do not move the position.

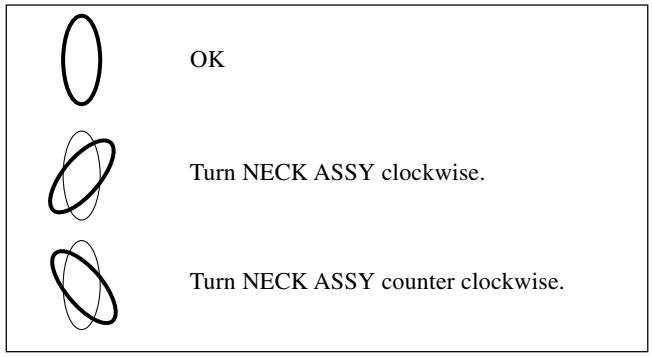
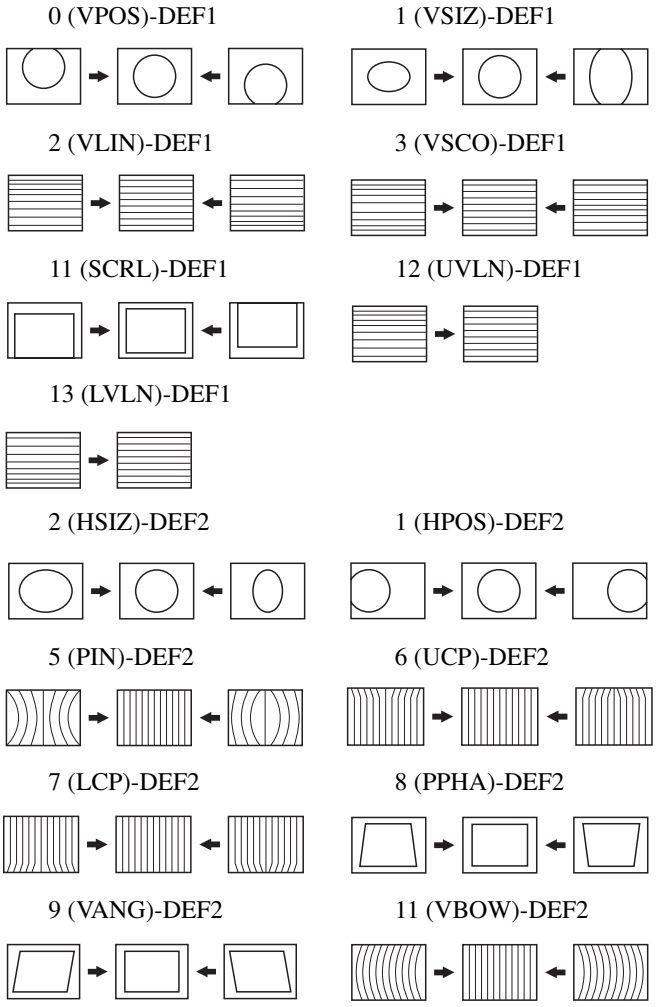


Fig. 4-5

4-6. PICTURE DISTORTION ADJUSTMENT

Note: In this adjustment use the monoscope signal.
Adjust in the service mode "DEF1" and "DEF2".

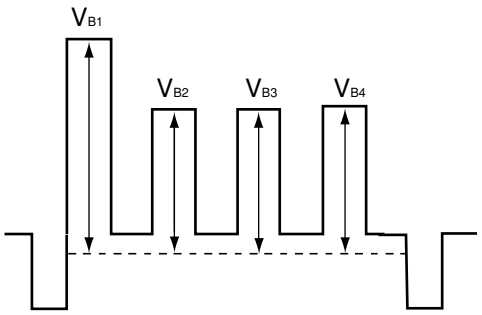


4-7. SUB COLOR ADJUSTMENT

1. Select VIDEO and set Picture according CONDITION
   Condition :

PIC	100%	HUE	Center
COL	50%	SHP	50%
BRT	50%		

2. Input PAL 100% CB to Video 1.
3. Adjust waveform at CN004 pin ① (B output) within spec by service item ‘‘SUB COL’’ and write in the data. As below
   -Add 4 step to SUB COL (AV PAL)
   $V_{B2} = V_{B3} = V_{B4}$
4. Input RF PAL 100% CB.
5. Adjust waveform at CN004 Pin (B output) within spec by setvice item ‘‘ SUB COL’’ and write in the data. As below
   -Add 4 step to SUB COL (TV PAL)
   $V_{B2} = V_{B3} = V_{B4}$
6. Input NTSC 75% CB at Video 1 and repeat item (3).
   -Add 2 step to SUB COL (AV NTSC)
   $V_{B1} = V_{B4}$
7. Input RF NTSC 75% CB and repeat item (5).
   -Add 2 step to SUB COL (AV NTSC)
   $V_{B1} = V_{B4}$
8. Select DVD input.
9. Input PAL 100% CB at YP_bP_r.
10. Adjust waveform at CN004 Pin (B output) within spec by setvice item ‘‘ SUB COL’’ and write in the data. As below
    -Add 3 step to SUB COL (DVD PAL)
    $V_{B2} = V_{B3} = V_{B4}$
11. Input NTSC 75% CB at YP_bP_r.
12. Adjust waveform at CN004 Pin (B output) within spec by setvice item ‘‘ SUB COL’’ and write in the data. As below
    -Add 5 step to SUB COL (DVD NTSC)
    $V_{B1} = V_{B4}$

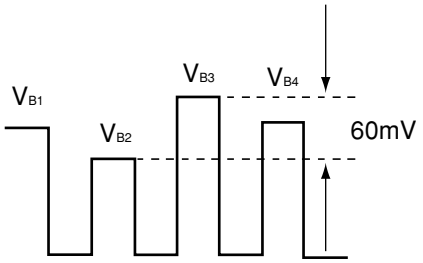


4-8. SUB HUE ADJUSTMENT

1. Select NTSC 3.58 color bar into Video / TV mode
   Condition :

PIC	100%	HUE	Center
COL	50%	SHP	50%
BRT	50%		

2. Select Video input.
3. At CN004 pin ① (B output) waveform (as shown) adjust service item SUB HUE and write the data.
4. Select TV channel with NTSC 3.58 & repeat (3).
   The highest level VB1, VB2, VB3, VB4 should be aligned at the same line.
   The idea difference between VB2 & VB3 is within ±60mV.

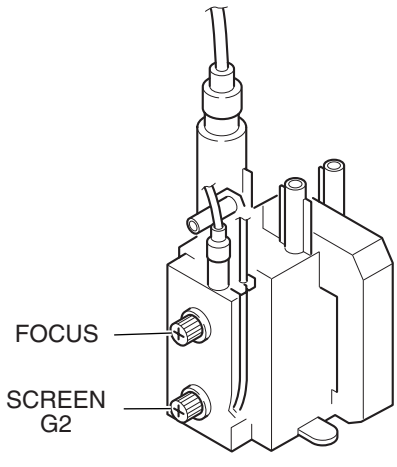


4-9. FOCUS ADJUSTMENT 2

Note

Focus adjustment should be completed before W/B adjustment.

(1) Receive digital monoscope pattern.
(2) Set PICTURE MODE to “DYNAMIC”.
(3) Adjust FOCUS VR so that the center of the screen becomes just focus.
(4) Change the receiving signal to white pattern and blue back.
(5) Confirm MAGENTA RING should not be over the limit sample. In case MAGENTA RING is over the limit sample, adjust FOCUS VR to take tracking of MAGENTA RING and FOCUS.



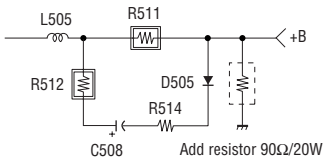
FLYBACK TRANSFORMER (T502)

SECTION 5
SAFETY RELATED ADJUSTMENTS

[A BOARD]

5-1. CHECKING OCP OPERATION

1) Receive WHITE PATTERN
   PICTURE : DYNAMIC
2) Connect 90ohm / 20W RESISTOR R511 between D505 anode and GND.
3) Check if the voltage at D506 cathode goes over 4.6V.
4) Immediately after checking, the resistor has to be disconnected.



5-2. CONFIRMATION OF V-PROTECTOR

1) Short D557.
2) Check if the voltage at D551 cathode goes over 4.6V.
3) Immediately after checking, the resistor has to be disconnected.

5-3. CHECKING POWER SUPPLY VOLTAGES

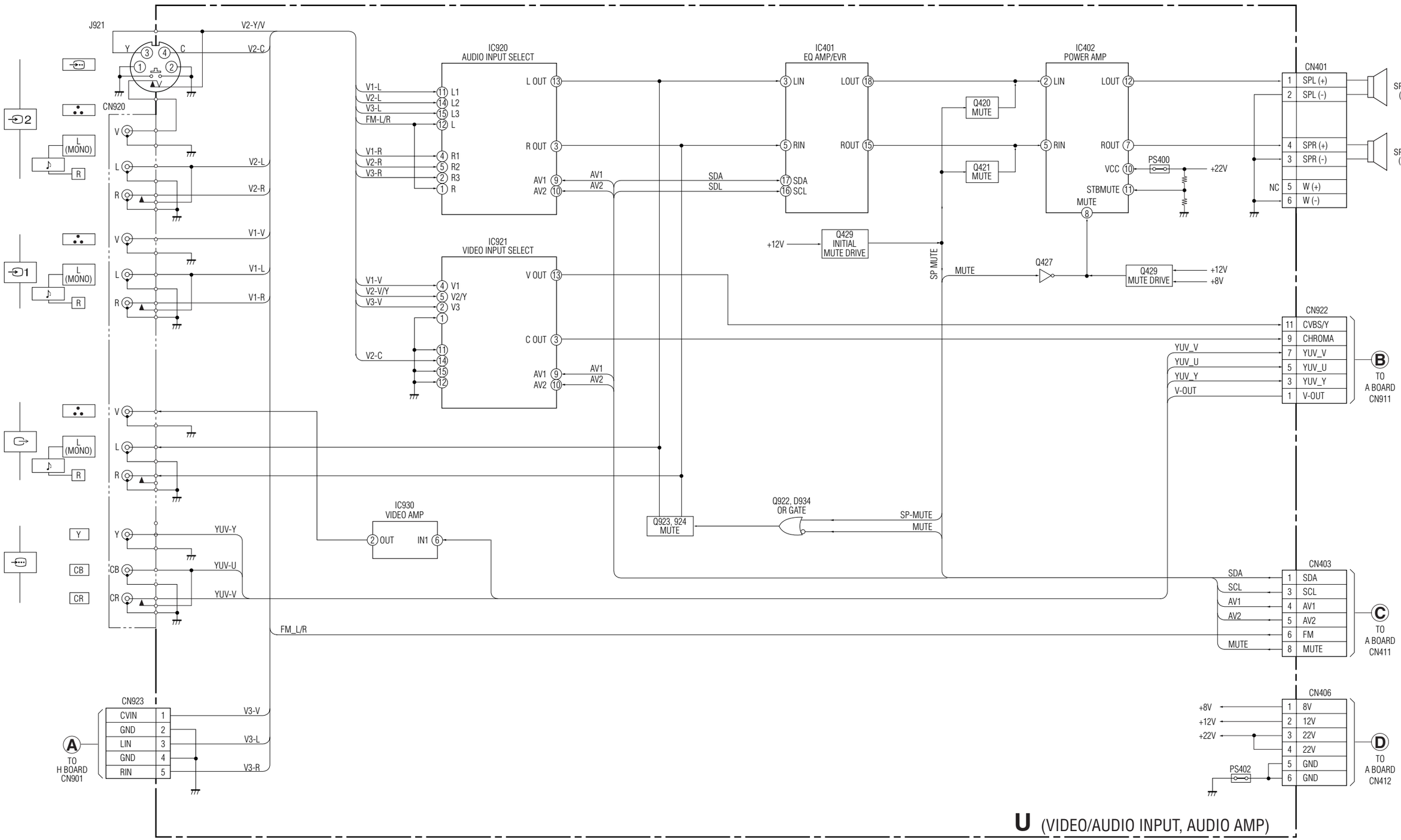
Feed the mono-scope or color bar siganal and confirm the following voltages.

1) +B line voltage(135V)
   Adjust R654.
   Measure between C654 +ve & GND.
   Specification: 135V ± 1.0 V
2) 12V line voltage
   Measure between C661 +ve & GND.
   Specification: 13.5 V ± 2.0 V
3) 8V line voltage
   C662 +ve & GND.
   Specification: 8.0V ± 0.5 V
4) 5V line voltage
   C664 +ve & GND.
   Specification: 5.05V ± 0.5 V
5) STBY-5V line voltage
   C652 +ve & GND.
   Specification: 5.0V ± 1.0 V
6) 3.3V line voltage
   C657 +ve & GND.
   Specification: 3.3V ± 0.15 V
7) FBT + 15V LINE
   Measure line voltage between +C557 & -C557 (GND)
   Specification: 13.3V ± 0.5 V
8) FBT - 15V LINE
   Measure line voltage between -C558 & +C558 (GND)
   Specification: -14.9V ± 0.6 V

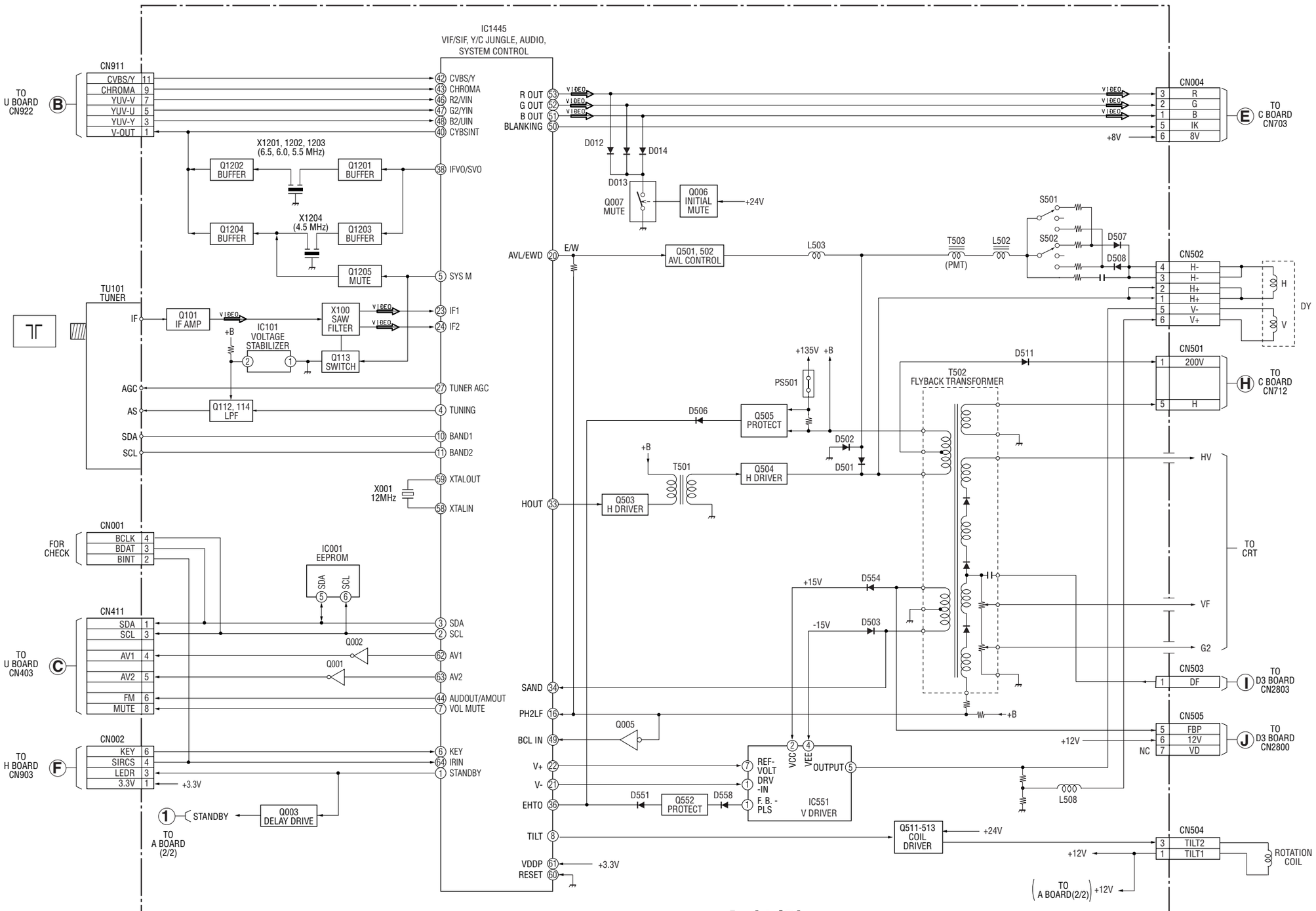
MEMO

SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM (1)

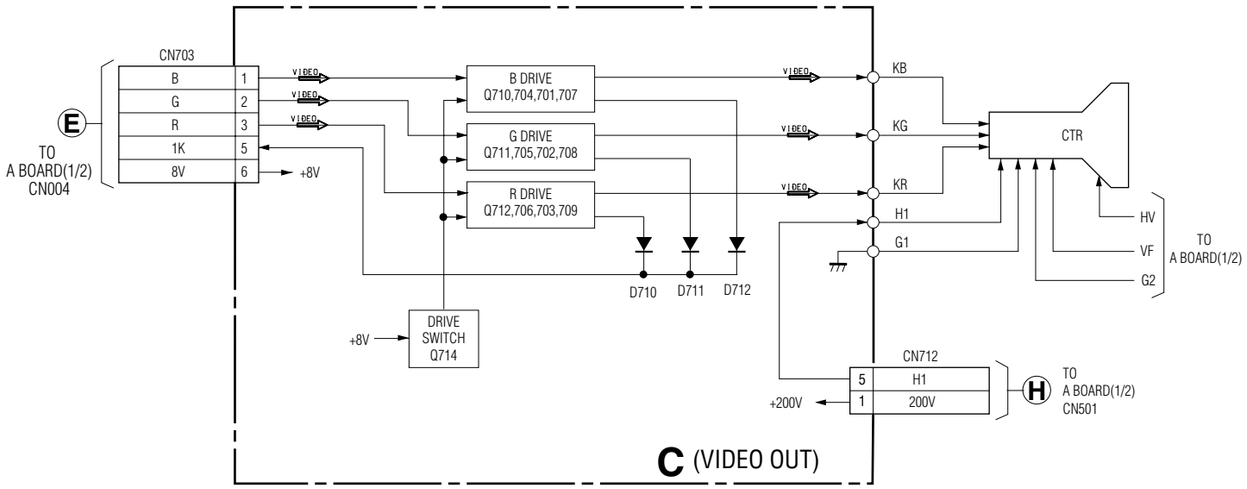


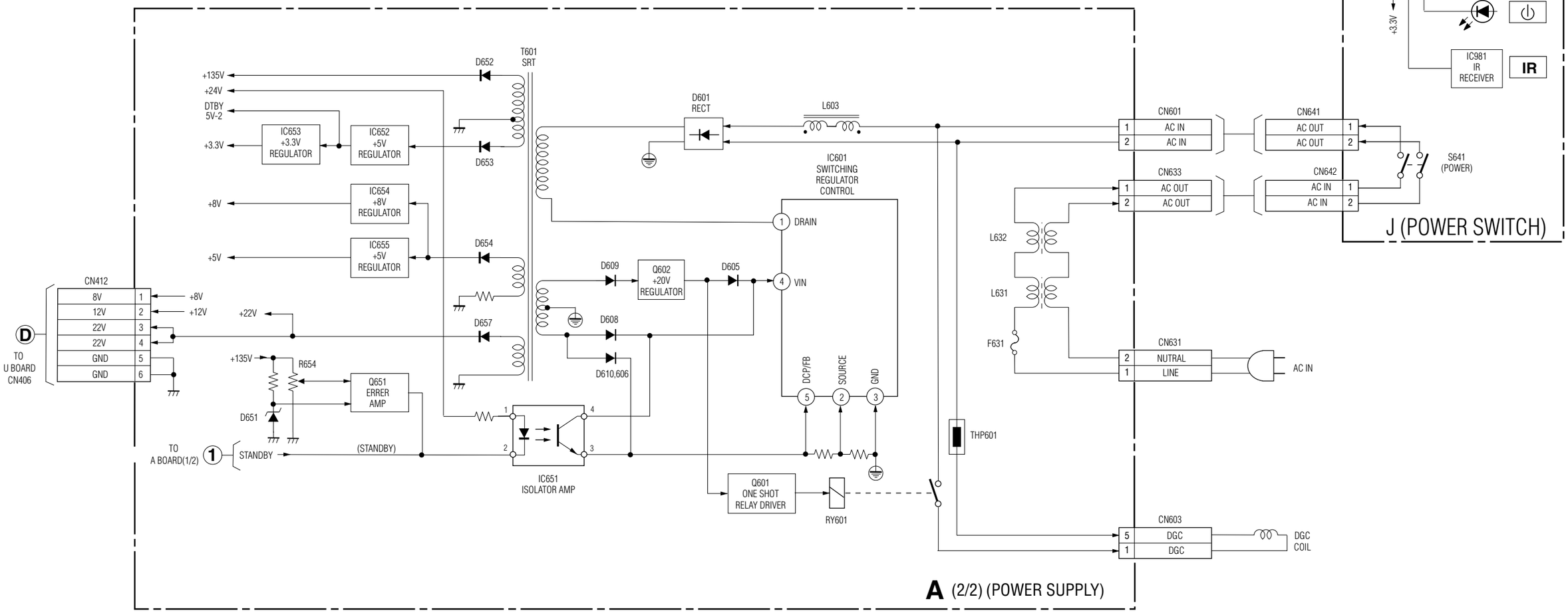
BLOCK DIAGRAM (2)

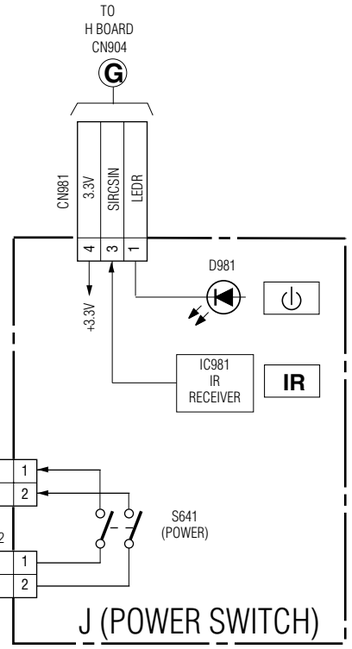


A (1/2) (Y/C JUNGLE, SYSTEM CONTROL, H/V)

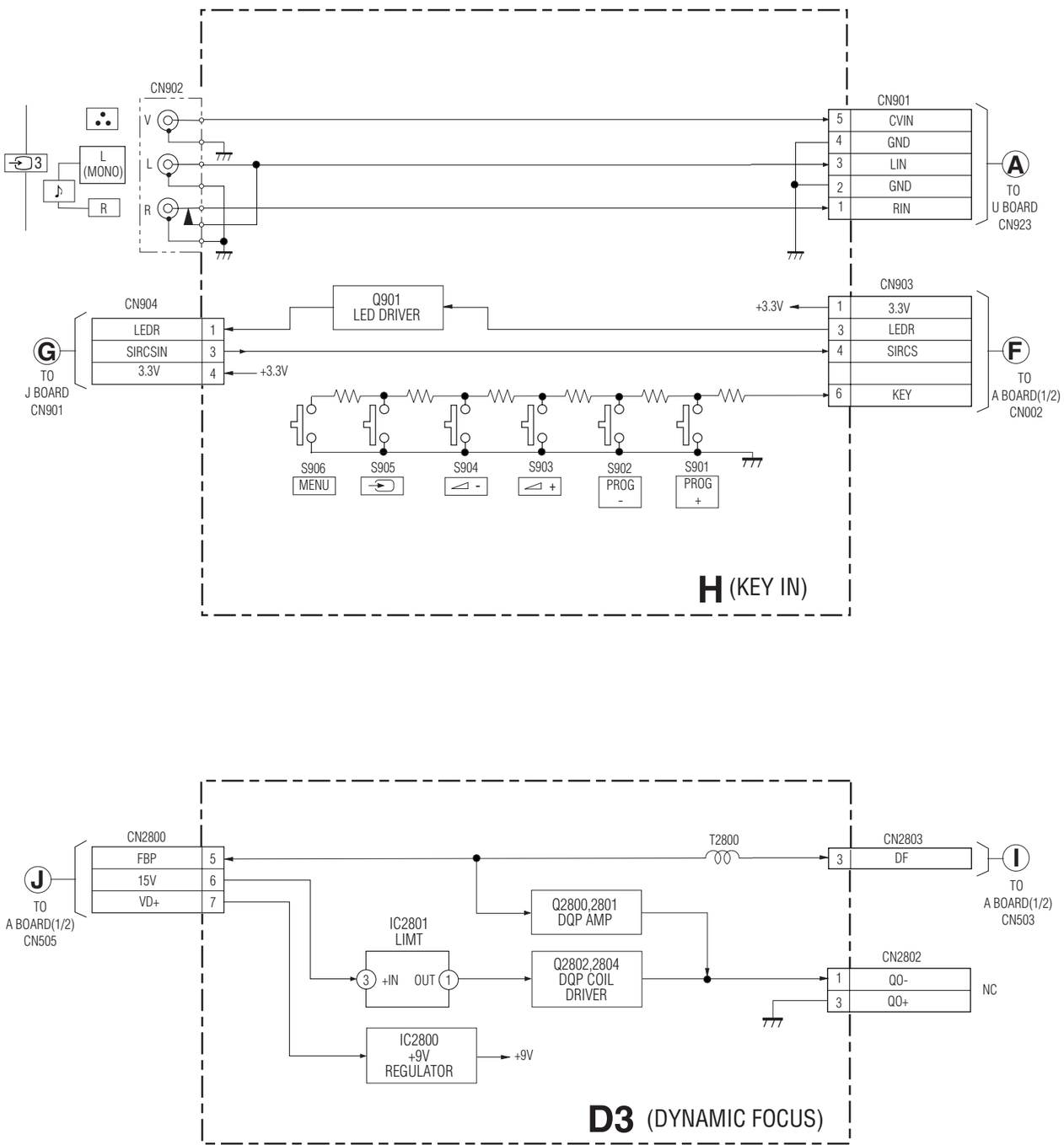
BLOCK DIAGRAM (3)



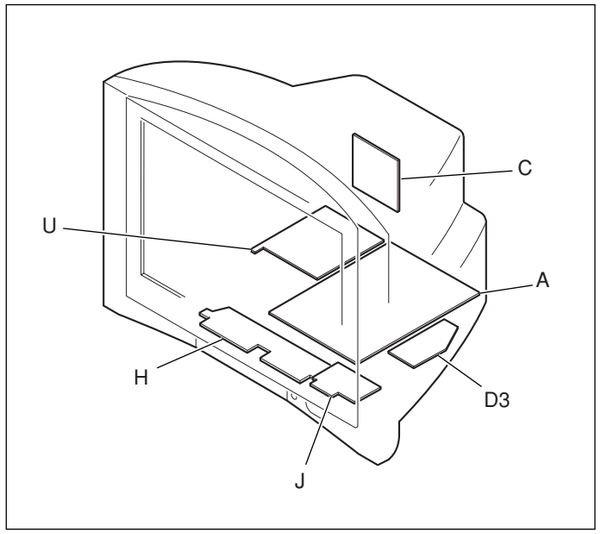




BLOCK DIAGRAM (4)



6-2. CIRCUIT BOARDS LOCATION



Note: The symbol ▬ display is on the component slde.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

The symbol ▬ indicate fast operating fuse. Replace only with fuse of same rating as maked.

6-3. SCHEMATIC DIAGRAMS

Note:
- Capacitors without voltage indication are all 50V.
- All resistors are in ohms.
  kΩ=1000Ω, MΩ=1000kΩ
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

  Pitch : 5mm
  Rating electrical power : 1/4 W
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- ▭ : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-chassis.
- Readings are taken with a PAL color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
  ∗ : Measurement impossibillity.
- Circled numbers are waveform references.

- ▬ : B+ bus.
- ▬ ▬ : B– bus.
- ⇨ : signal path.(RF)

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

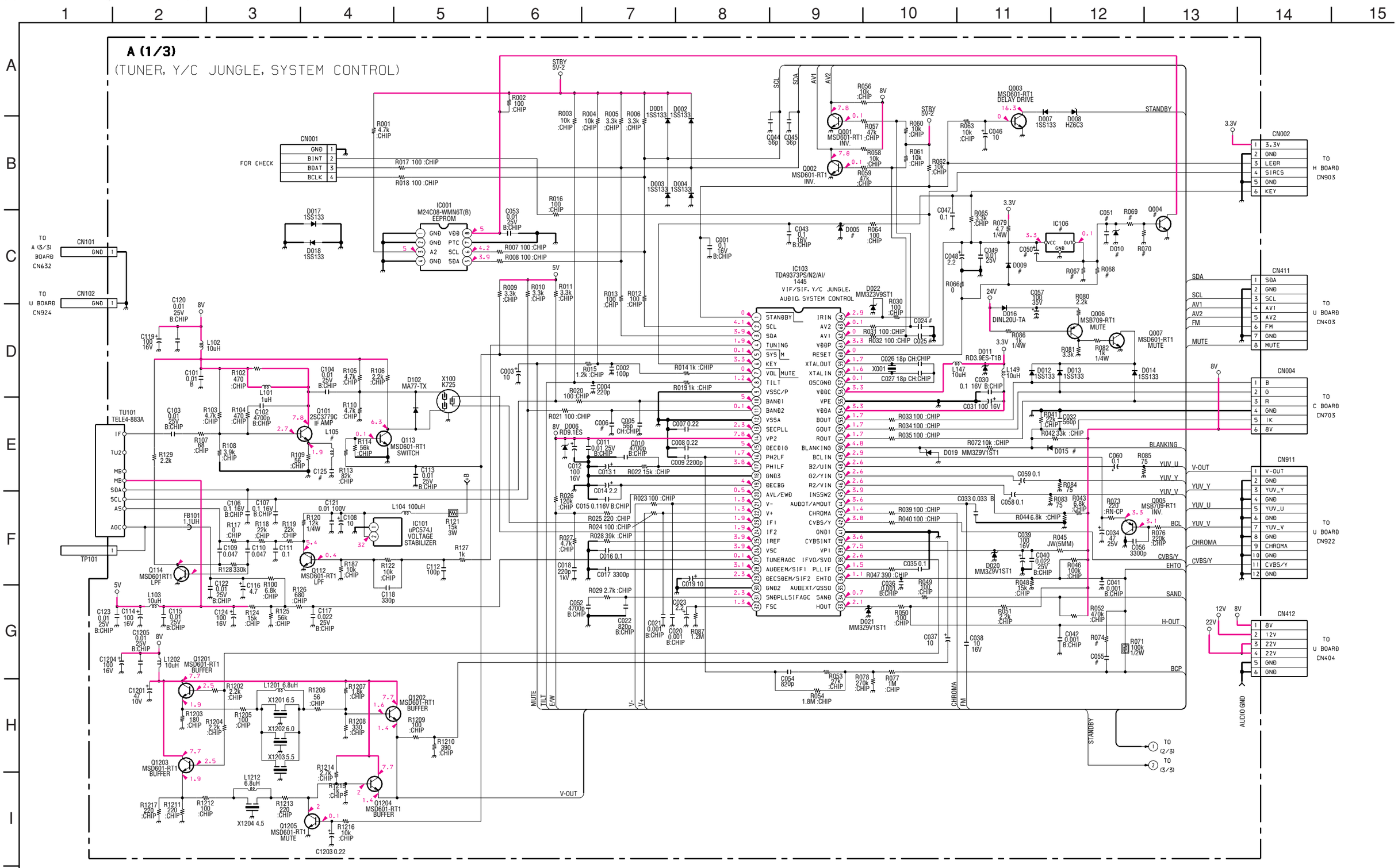
Terminal name of semiconductors in silk screen printed circuit (∗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector / Base T Emitter	
②	Transistor	▬	Collector / Base ▬ Emitter	
③	Diode	⊓	Cathode ⊣▭⊢ Anode	
④	Diode	T	Cathode / Anode T (NC)	
⑤	Diode	▬	Cathode / Anode ▬ (NC)	
⑥	Diode	T	Common / Anode T Cathode	
⑦	Diode	▬	Common / Anode ▬ Cathode	
⑧	Diode	T	Common / Anode T Anode	
⑨	Diode	▬	Common / Anode ▬ Anode	
⑩	Diode	T	Common / Cathode T Cathode	
⑪	Diode	▬	Common / Cathode ▬ Cathode	
⑫	Diode	▮	Anode Anode Cathode ▮ Cathode Anode Anode	
⑬	Transistor (FET)	▮	Drain ▮ Source / Gate	
⑭	Transistor (FET)	┣	Drain ▮ Source / Gate	
⑮	Transistor (FET)	▮	□ Source / □ Drain / □ Gate	
⑯	Transistor	▮	□ Emitter / □ Collector / □ Base	
⑰	Transistor	⊣⊢	C2 B1 E1 / E2 B2 C1 ▬	
⑱	Transistor	⊣⊢	C1 B2 E2 / E1 B1 C2 ▬	
⑲	Transistor	▬	C1 B2 E2 / E1 B1 C2 ▬	
⑳	Transistor	▬	C1 B2 E2 / E1 B1 C2 ▬	
㉑	Transistor	▬	E2 B1 E1 / C2 C1(B2) ▬	
㉒	Transistor	▬	(B2) / B1 E1 E2 / C1 C2 ▬	
㉓	Transistor	▬	(B2) / E2 E1 B1 / C2 C1 ▬	
–	Discrete semiconductot			

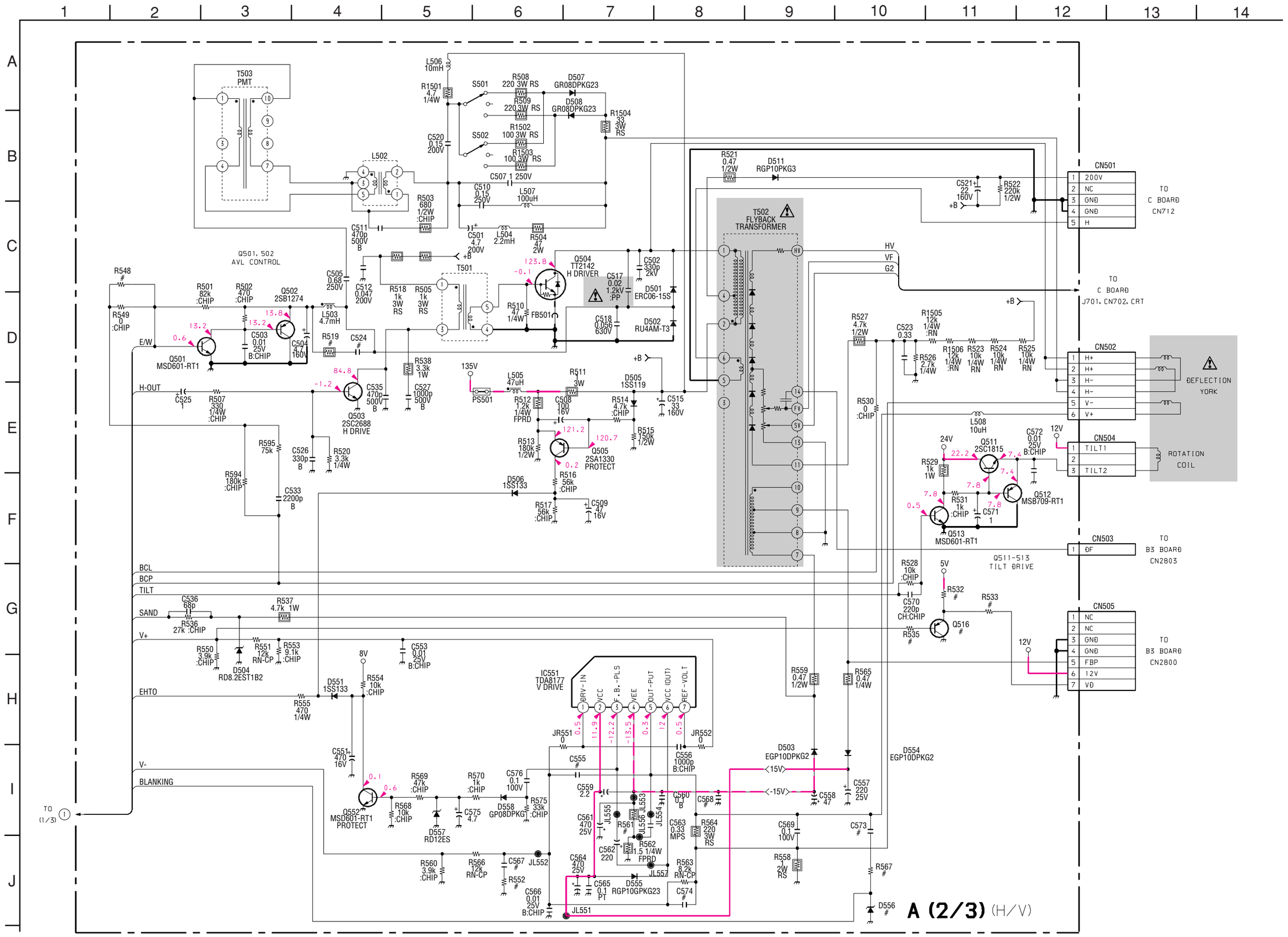
(Chip semiconductors that are not actually used are included.)

Ver.1.5

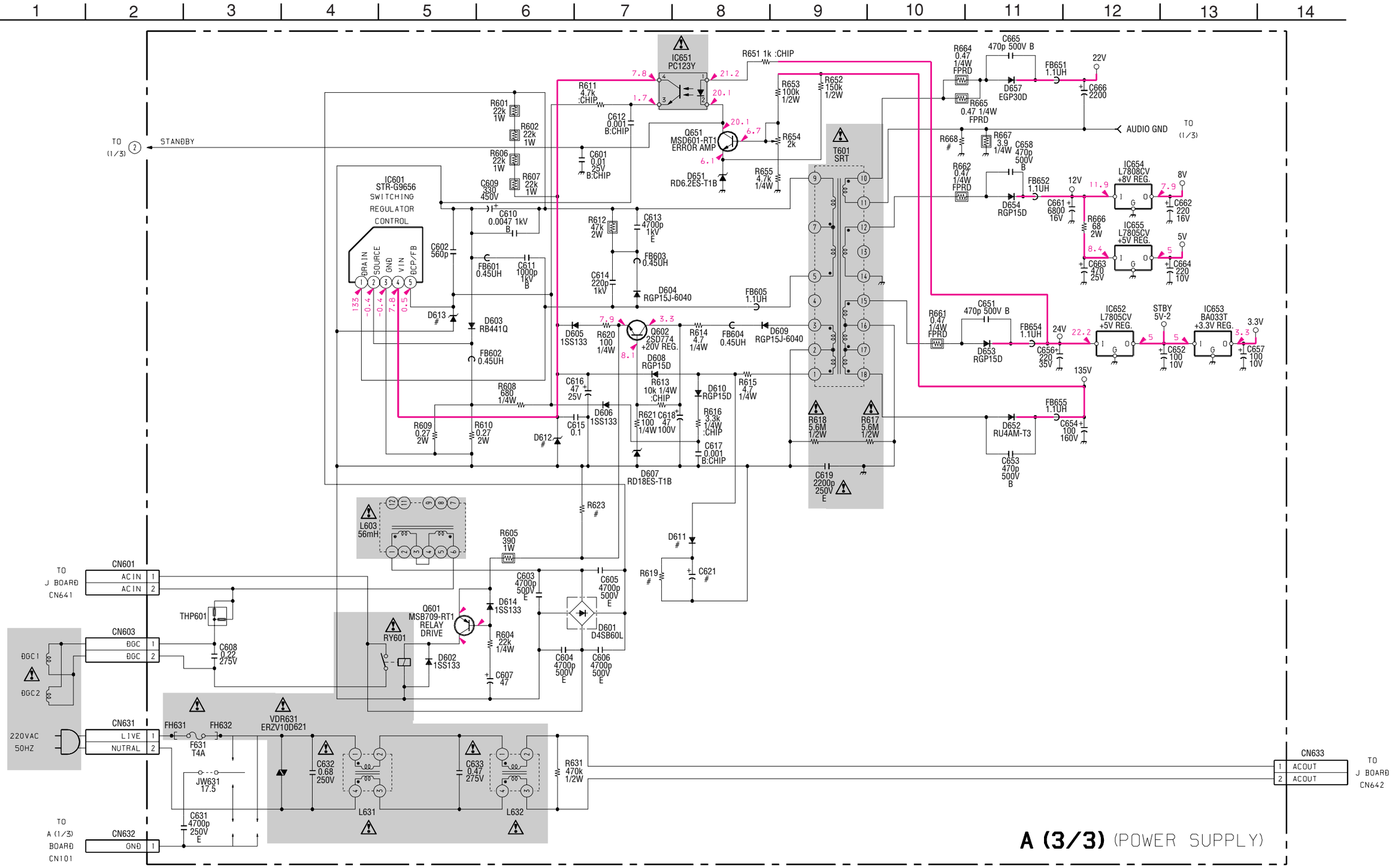
(1) Schematic Diagram of A (1/3) Board



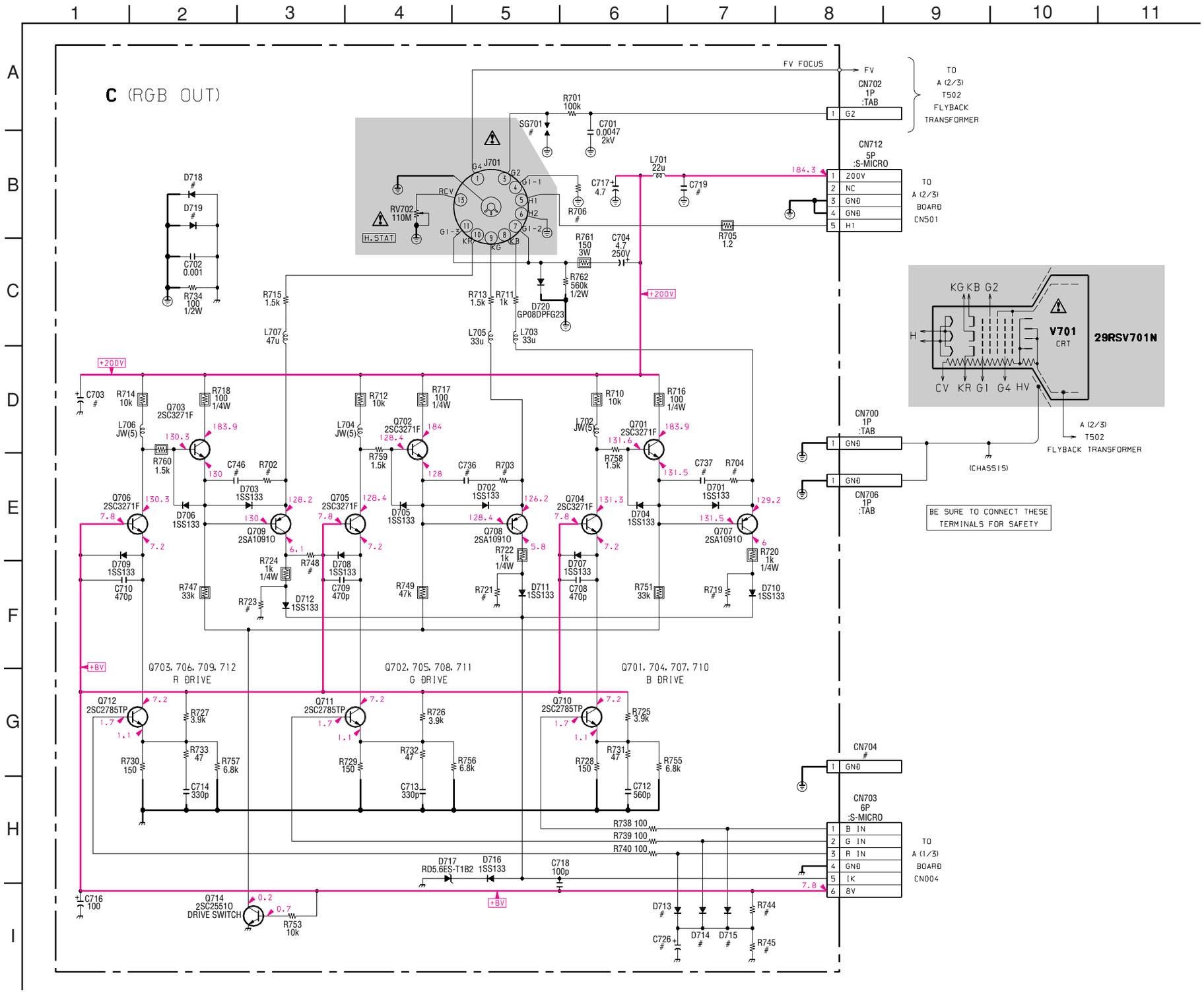
(2) Schematic Diagram of A (2/3) Board



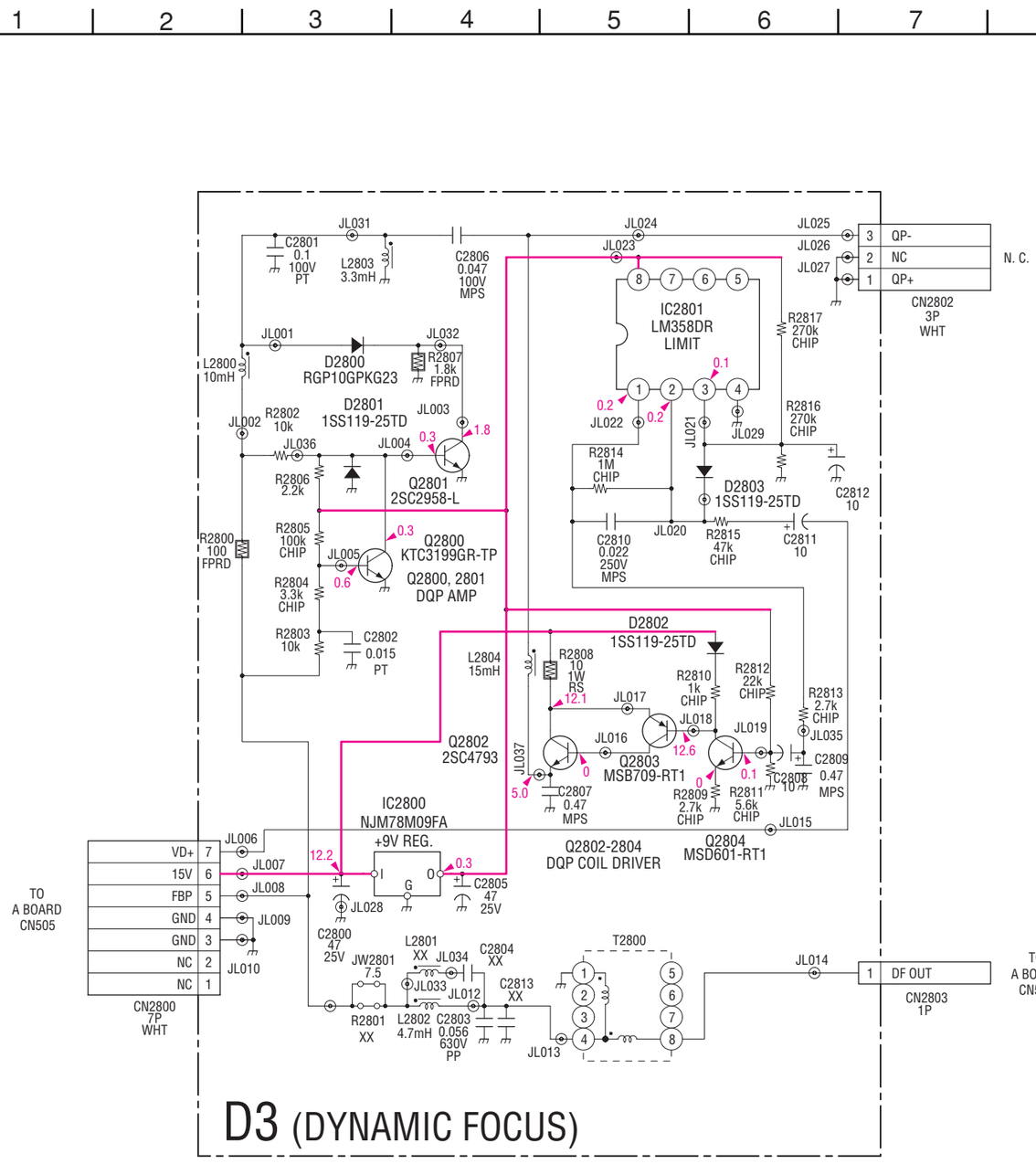
(3) Schematic Diagram of A (3/3) Board

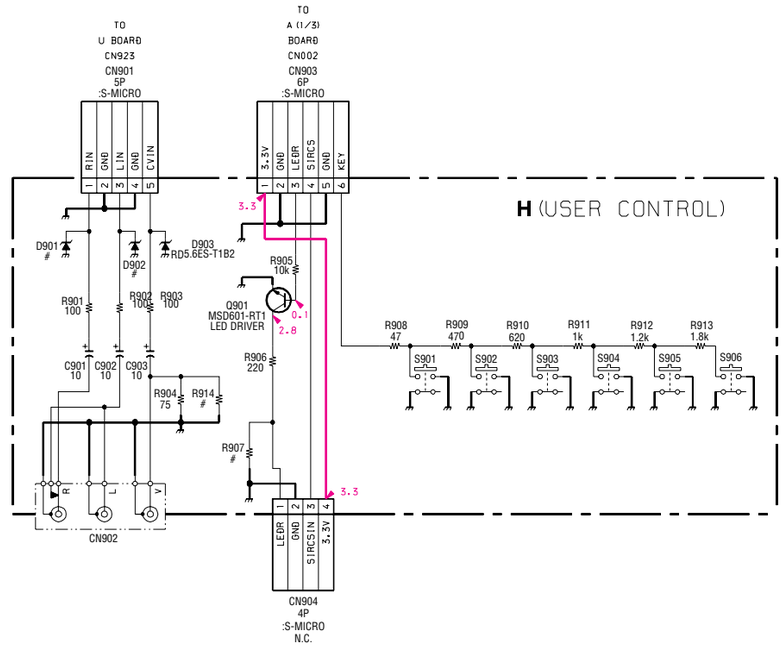


(4) Schematic Diagram of C Board

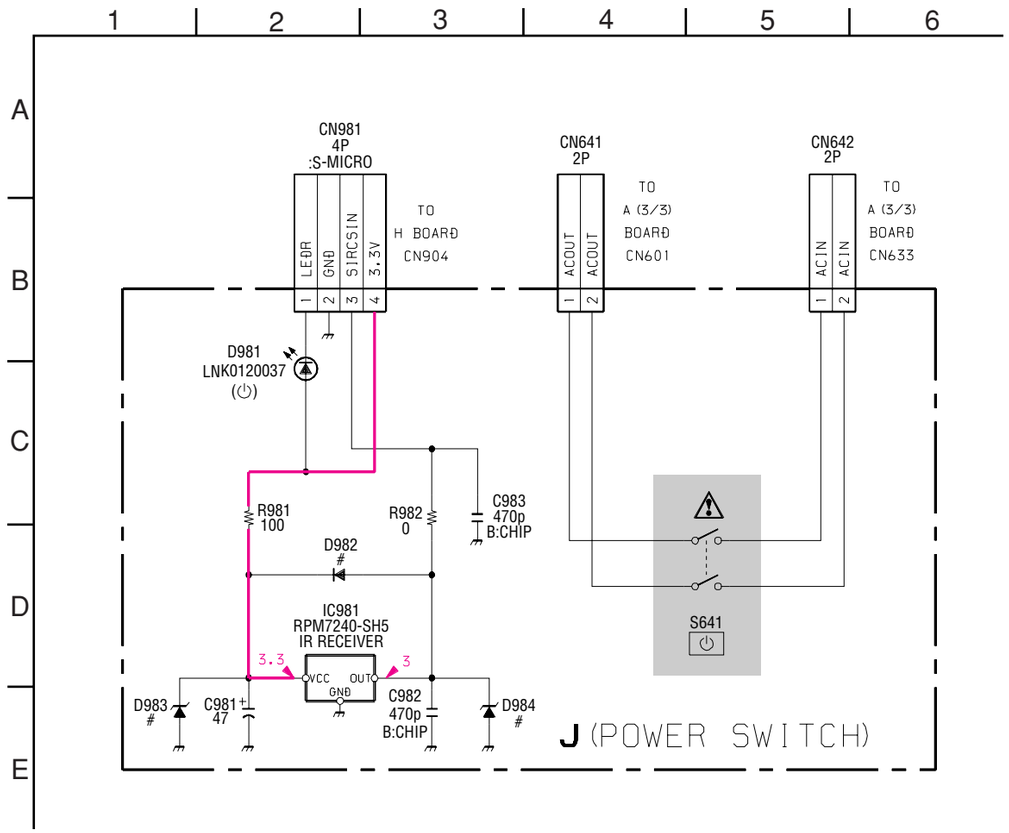


(5) Schematic Diagram of D3, H Board

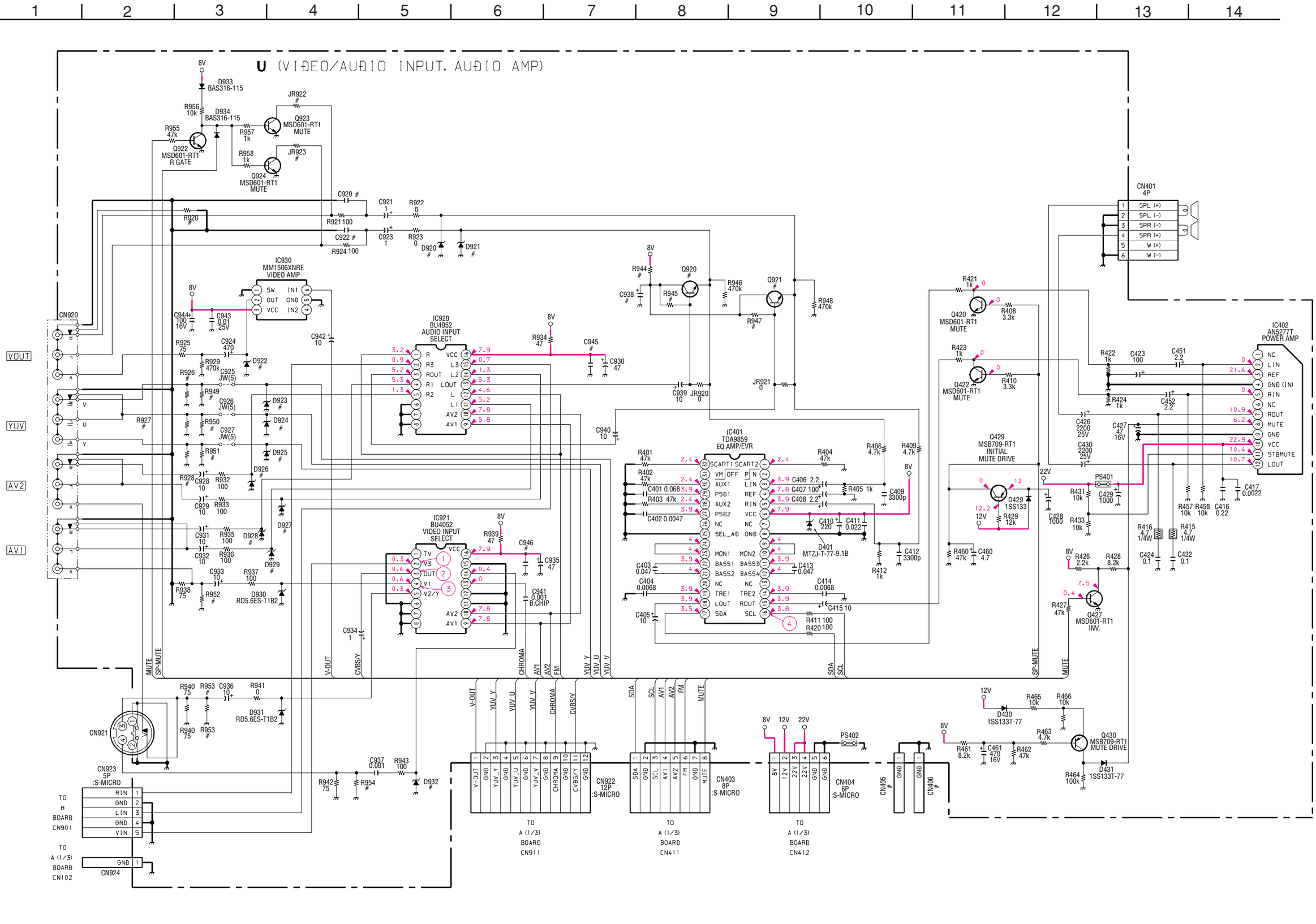




(6) Schematic Diagram of J Board

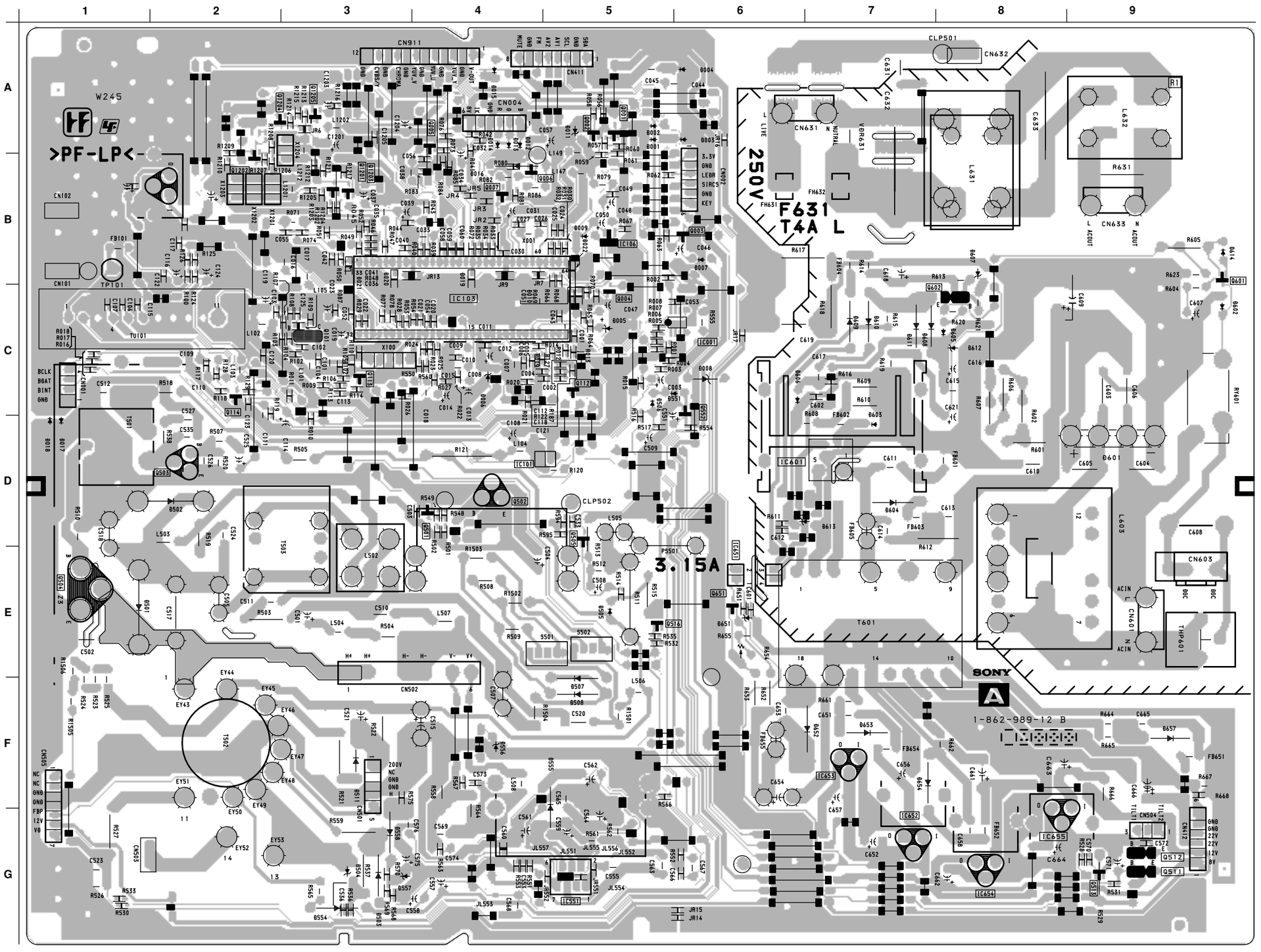


(7) Schematic Diagram of U Board



6-4. PRINTED WIRING BOARDS

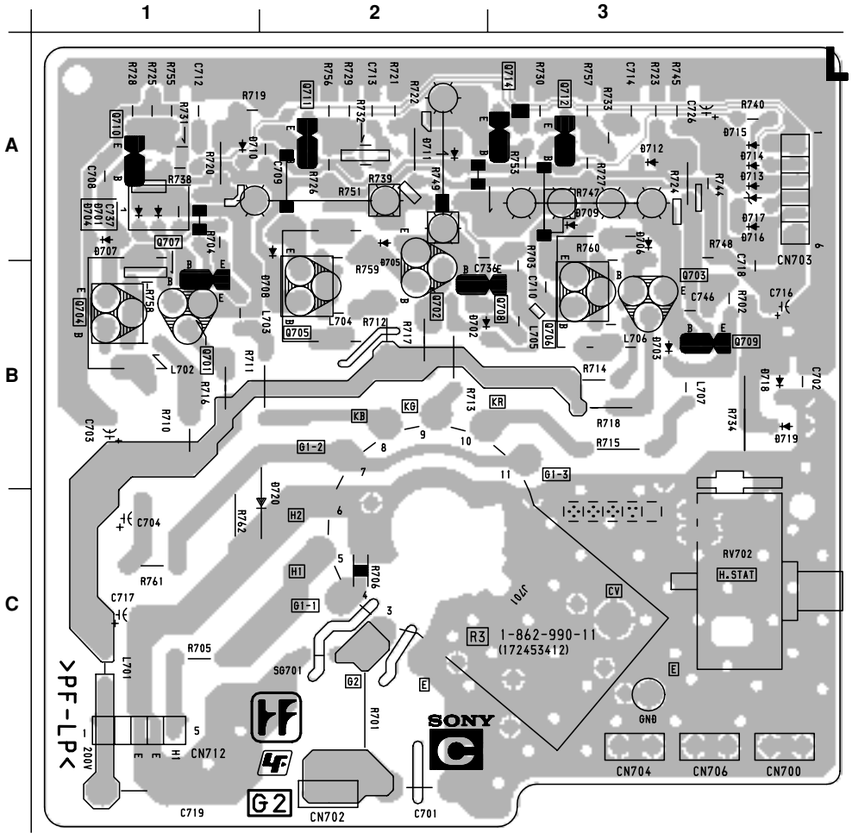
A [Y/C JUNGLE, SYSTEM CONTROL, H/V, POWER SUPPLY]



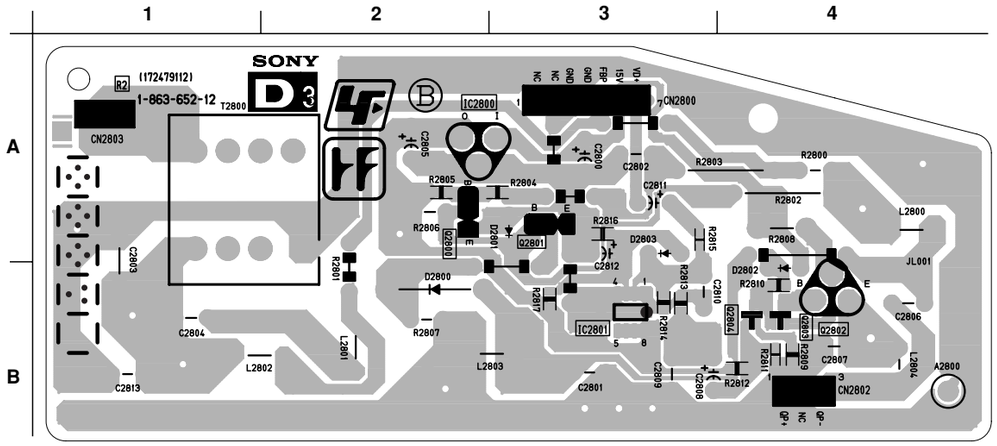
• A BOARD SEMICONDUCTOR LOCATION

IC		DIODE		
			*	
IC001	C-6			
IC101	D-4	D001	A-5	
IC103	C-4	D002	A-5	
IC551	G-5	D003	A-6	
		D004	A-6	
IC601	D-6	D006	C-4	
IC651	E-6			
IC652	G-8	D007	B-6	
IC653	F-7	D008	C-6	
IC654	G-8	D011	A-5	
		D012	A-4	
IC655	G-8	D013	A-4	
TRANSISTOR		D014	A-4	
	*	D016	B-4	
		D017	D-1	
Q001	A-5 ①	D018	D-1	
Q002	A-5 ①	D019	B-4	③
Q003	B-6 ①			
Q005	A-4 ①	D020	B-3	③
Q006	A-4 ①	D021	B-3	③
		D102	C-3	③
Q007	B-4 ①			
Q101	C-3	D501	E-1	
Q112	C-5 ①	D502	D-2	
Q113	C-3 ①	D503	G-3	
Q114	C-2 ①	D504	G-3	
		D505	E-5	
Q501	D-4 ①			
Q502	D-4	D506	C-5	
Q503	D-2	D507	F-5	
Q504	E-1	D508	F-5	
		D511	F-3	
Q505	D-5	D551	C-5	
Q511	G-9			
Q512	G-9	D554	G-3	
Q513	G-9 ①	D555	F-5	
Q552	C-6 ①	D557	G-3	
		D558	G-3	
Q601	B-9 ①	D601	D-9	
Q602	C-8			
Q651	E-6 ①	D602	C-9	
Q1201	B-3 ①	D603	D-7	
Q1202	B-2 ①	D604	D-7	
		D605	C-8	
Q1203	B-3 ①	D606	C-6	
Q1204	A-2 ①			
Q1205	A-3 ①	D607	B-8	
		D608	C-7	
		D609	C-7	
		D610	C-7	
		D614	B-9	
		D651	E-6	
		D652	F-7	
		D653	F-7	
		D654	F-7	
		D657	F-9	

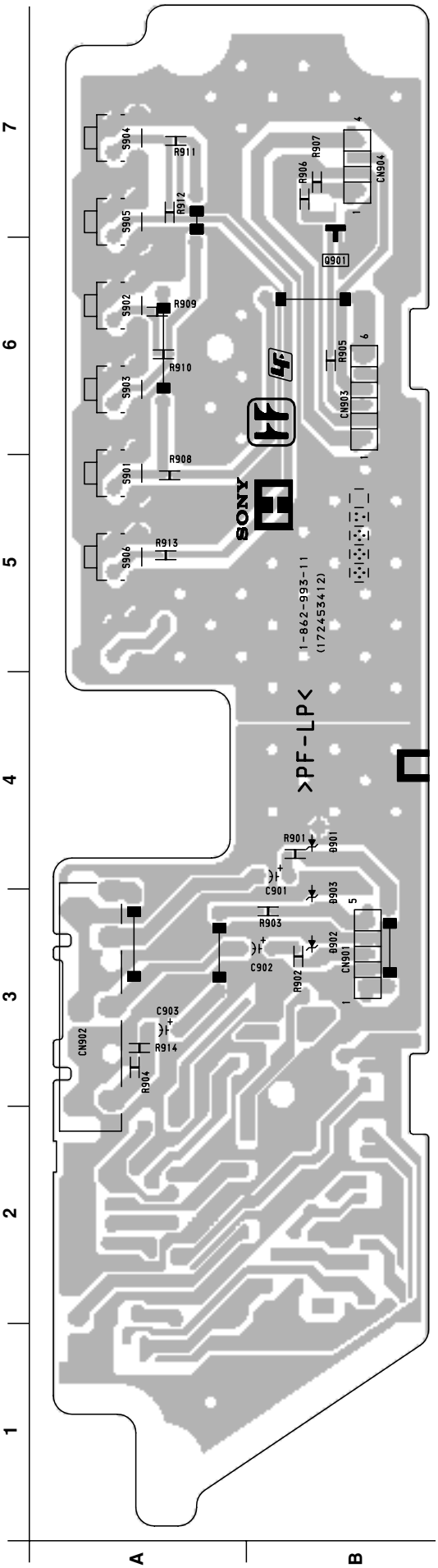
C [VIDEO OUT]



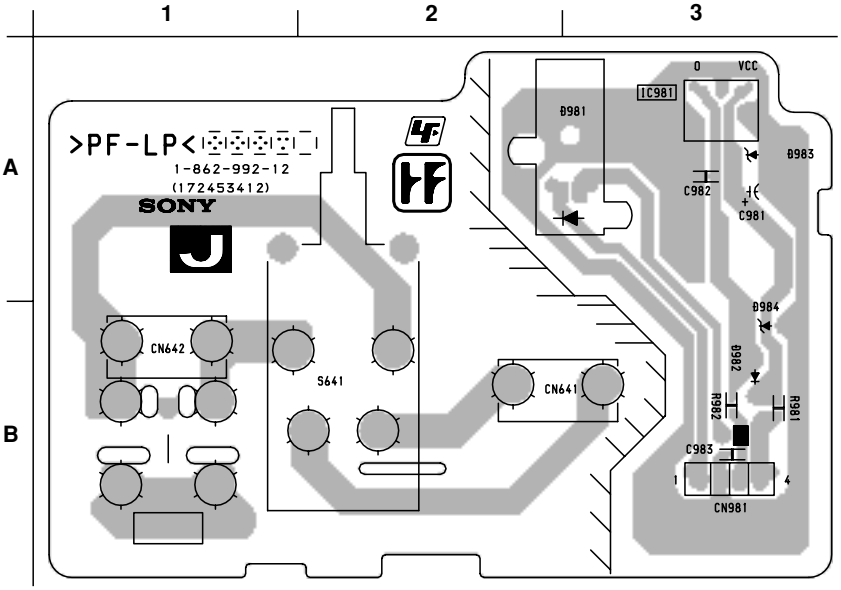
D3 [DYNAMIC FOCUS]



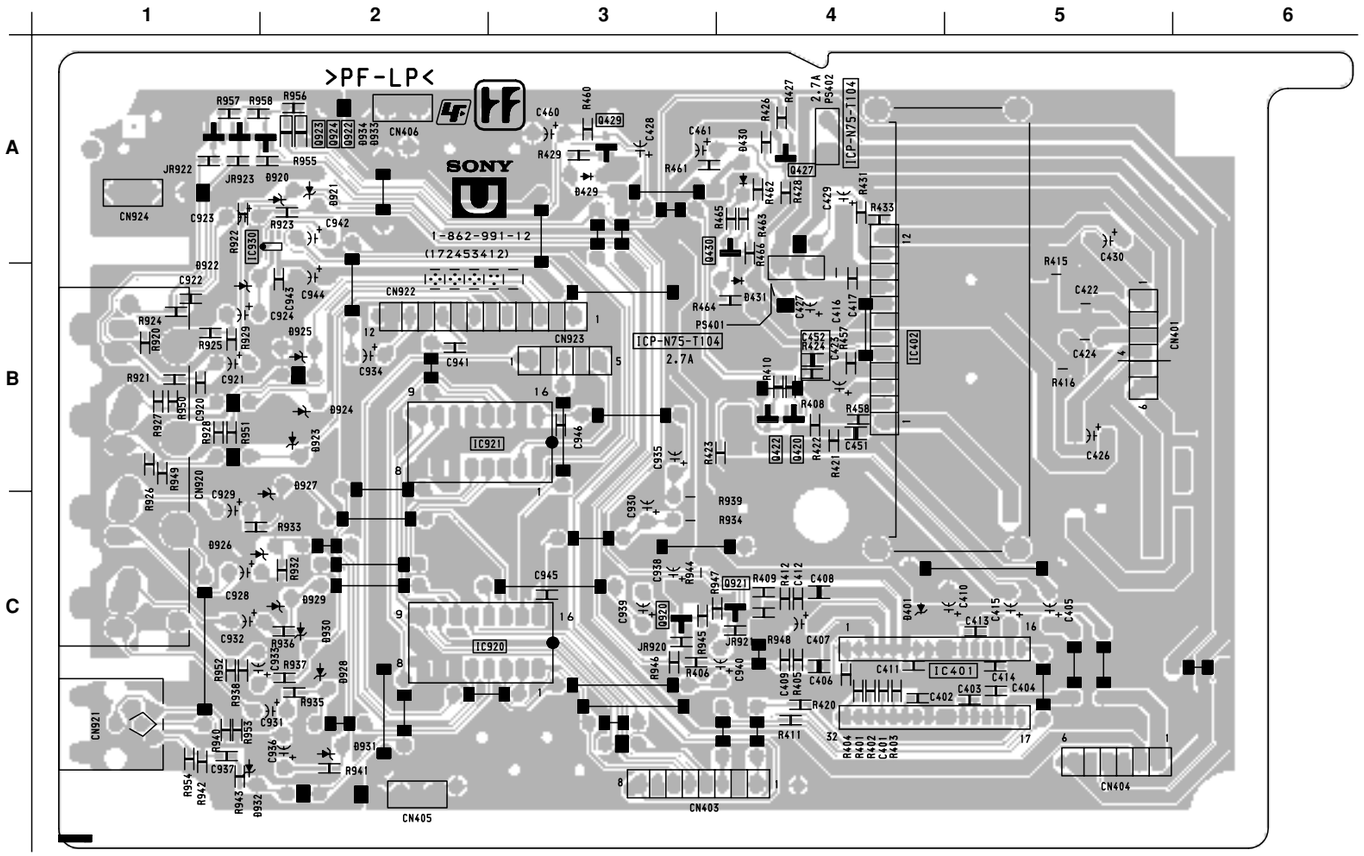
H [KEY IN]


S904
R911
S905
R912
S902
R909
S903
R910
S901
R908
S906
R913
R906
R907
CN904
Q901
R905
CN903
SONY
1-862-993-11
(172453412)
>PF-LP<
R901
B901
C901
B903
R903
C902
B902
R902
CN901
C903
R914
R904
CN902
1
2
3
4
5
6
7
A
B

J [POWER SWITCH]



U [VIDEO/AUDIO INPUT, AUDIO AMP]

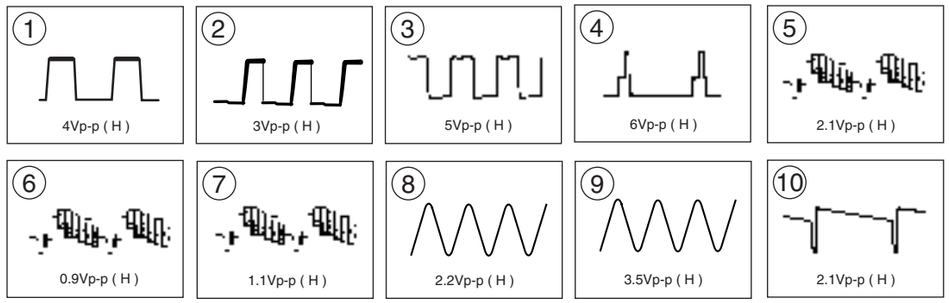


• **U BOARD SEMICONDUCTOR LOCATION**

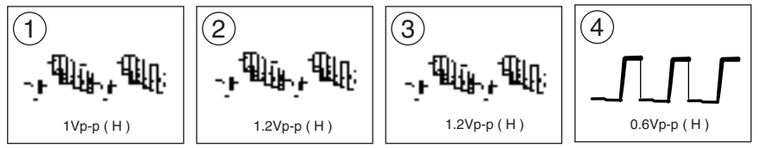
IC		
IC401	C-5	
IC402	B-4	
IC920	C-2	
IC921	B-2	
IC930	A-2	
TRANSISTOR		
		*
Q420	B-4	①
Q422	B-4	①
Q427	A-4	①
Q429	A-3	①
Q430	A-4	①
Q922	A-2	①
Q923	A-1	①
Q924	A-1	①
DIODE		
		*
D401	C-4	
D429	A-3	
D430	A-4	
D431	B-4	
D930	C-2	
D931	C-2	
D933	A-2	③
D934	A-2	③

6-5. WAVEFORMS

•A BOARD WAVEFORMS

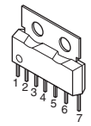


• V BOARD WAVEFORMS



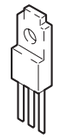
6-6. SEMICONDUCTORS

AN5277T

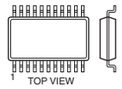


12pin

BA033T

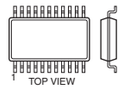


M24C08-WMN6T(B)



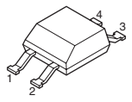
8pin

MM1506XNRE



6pin

PC123Y22



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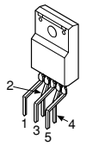

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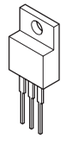
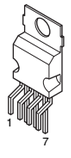
TA7808S



TC74HC123AP4052BPHP

16pin

TDA8177
TDA9373PS/N2/AI
TDA9373PS/N2/AI/1445



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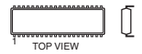
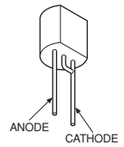


32pin

UPC574J



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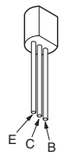
2SC1815Y-TPE2
2SC2551-O



5pin

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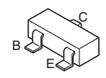
2SA1330-06
2SA1576A-T106-R
2SA1611-M5M6
2SC1623-L5L6
2SC3779C,D-AA
2SC4081-R
2SD601A-Q
DTA114EKA-T146
DTC114EK
DTC114EU
DTC143EKA-T146
DTC144EKA
DTC144EUA-T146
MSD601-RT1



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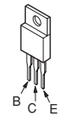
2SD2634-CA



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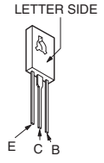
2SC2688-LK



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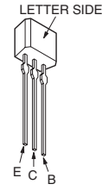

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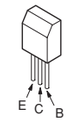

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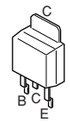

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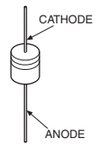
HZS9.1NB2
RB441Q-40T77
RD12ESB2
RD18ESB2
RD3.9ESB2
RD5.6ESB2
RD6.2ESB2
RD8.2ES-B2



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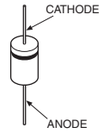

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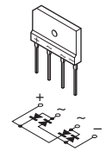

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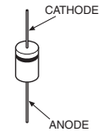
ERC06-15S
RD56
RU4AM-T3



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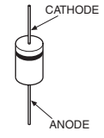
EL1Z
GP08D



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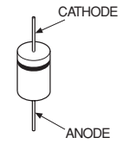

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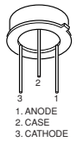
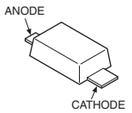


MA77-TX



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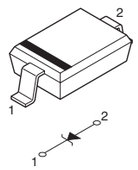

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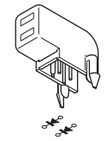
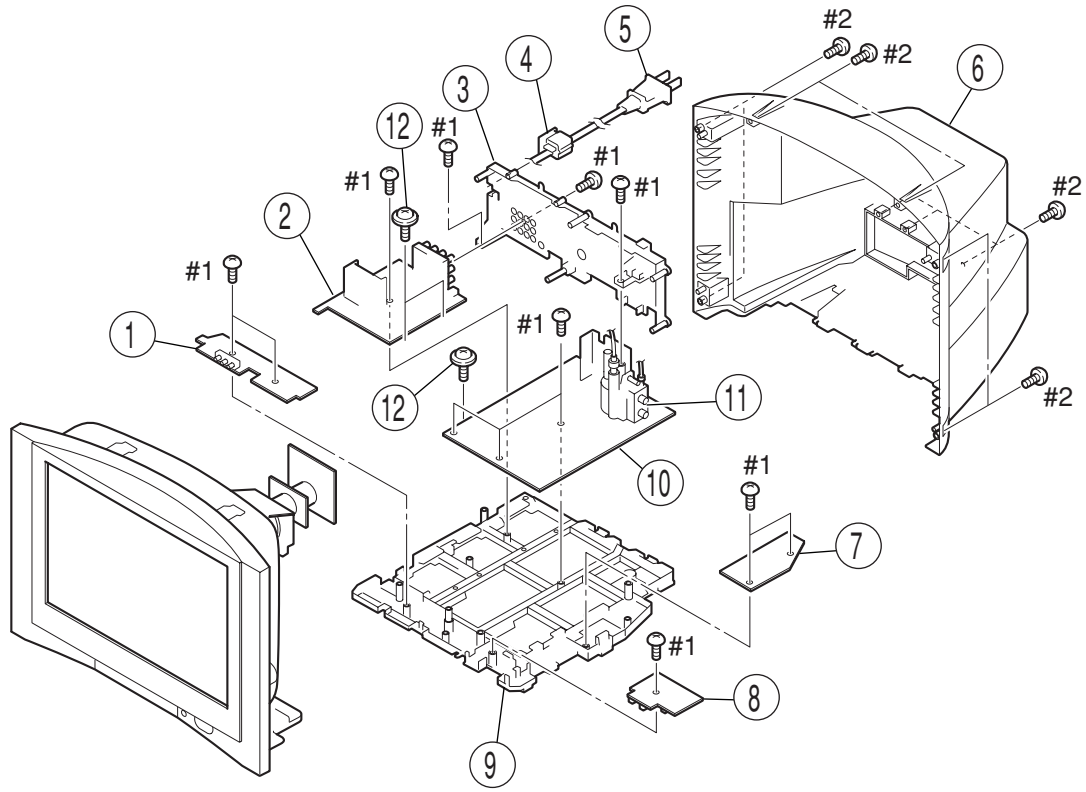


SECTION 7
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

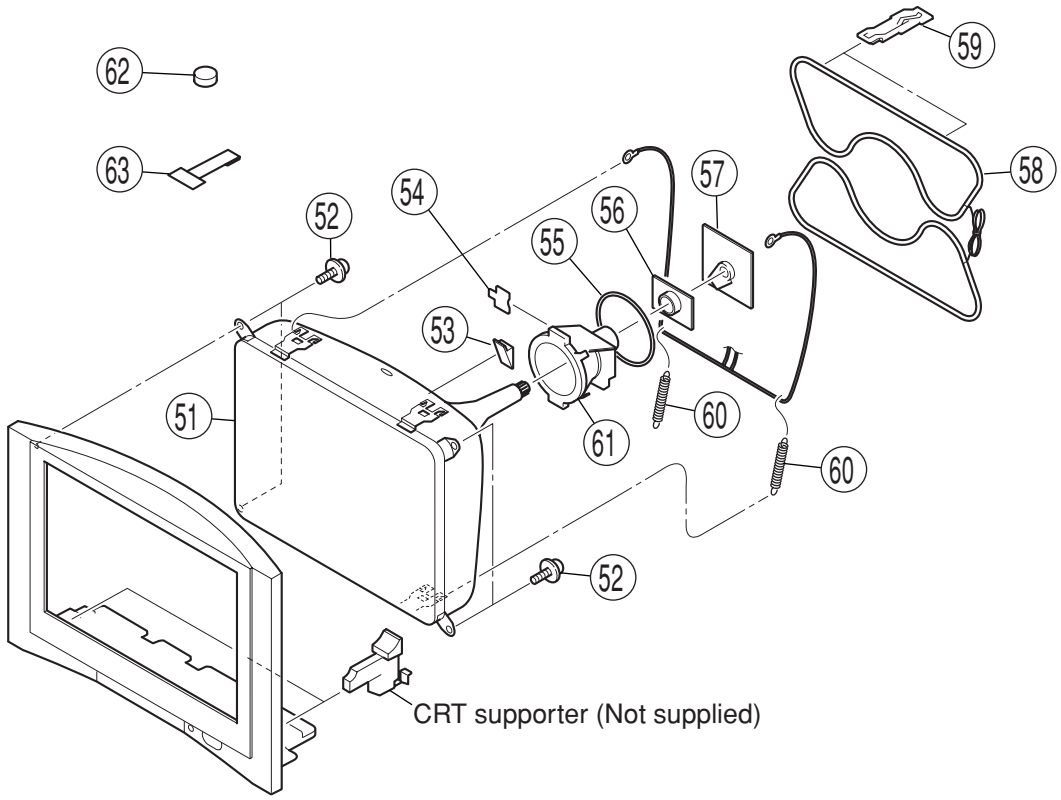
The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. CHASSIS SECTION



REF. NO.		PART NO.	DESCRIPTION	REMARK
1	*	A-1058-214-A	H BOARD, COMPLETE	
2	*	A-1058-213-A	U BOARD, COMPLETE	
3	*	4-096-276-11	BRACKET, TERMINAL	
4		4-022-115-51	HOLDER, AC CORD	
5	⚠	0-000-000-00	CORD, POWER	
6	*	4-087-606-21	COVER, REAR	
7	*	A-1067-378-B	D3 BOARD, COMPLETE	
8	*	A-1058-215-A	J BOARD, COMPLETE	
9	*	4-096-277-02	BRACKET, MAIN	
10	*	A-1058-210-A	A BOARD, COMPLETE	
11	⚠	1-453-284-11	FBT ASSY NX-6020//M3J4	
12		4-302-428-03	SCREW (WASHER HEAD) (+P 3X12)	
#1		7-685-648-79	SCREW +BVTP 3X12 TYPE2 TT(B)	
#2		7-685-663-79	SCREW +BVTP 4X16 TYPE2 TT(B)	

7-2. CRT SECTION

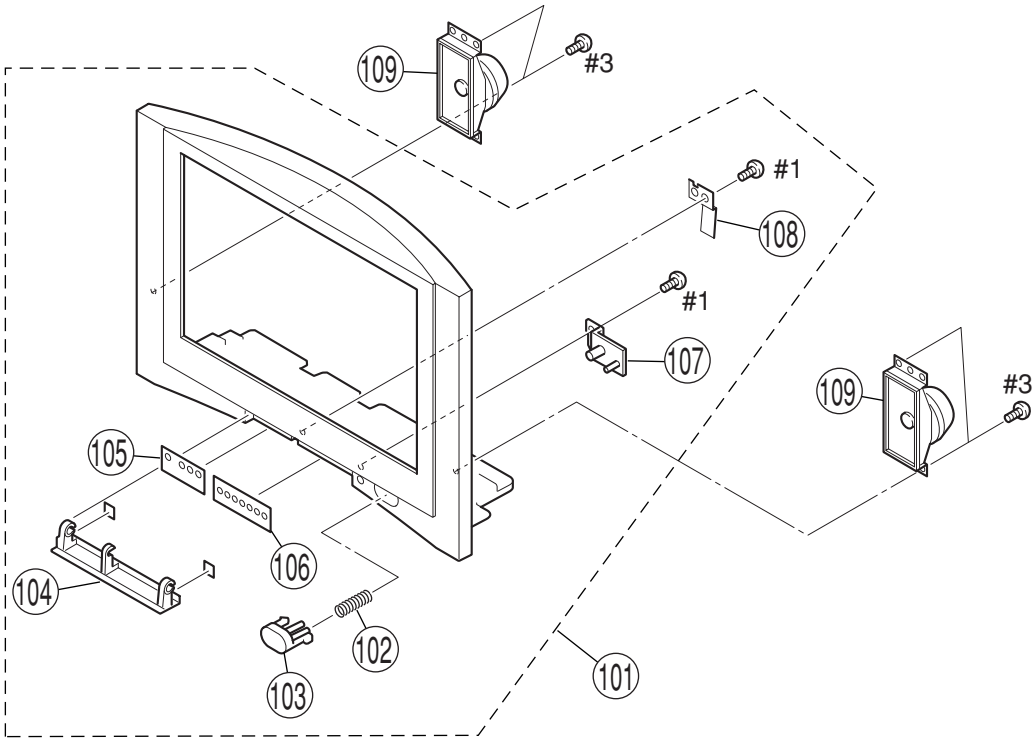


The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.		PART NO.	DESCRIPTION	REMARK
51	⚠	8-735-020-05	CRT 29RSN	
52		4-046-765-41	SCREW, TAPPING 7+CROWN WASHER	
53		3-703-961-01	SPACER, DY	
54		4-077-228-02	PIECE, TLH CONVERGENCE	
55	⚠	1-452-896-11	COIL, NA ROTATION (RT-200)	
56	⚠	1-451-576-11	NECK ASSEMBLY	
57	*	A-1058-212-A	C BOARD, COMPLETE	

REF. NO.		PART NO.	DESCRIPTION	REMARK
58	⚠	1-419-323-11	COIL, DEGAUSSING	
59	*	4-062-970-22	CLIP (29RSN), DGC	
60		4-369-318-61	SPRING, TENSION	
61	⚠	8-451-494-31	DY Y29RSA-A	
62		1-452-032-00	MAGNET,DISC	
63		4-051-734-42	PIECE B(120), CONV, CORRECT	

7-3. BEZEL SECTION



REF. NO.		PART NO.	DESCRIPTION	REMARK
101	*	X-2021-119-1	BEZNET ASSY	
102		4-036-405-11	SPRING, COMPRESSION	
103	*	4-087-796-11	BUTTON, POWER	
104	*	4-087-488-11	DOOR	
105	*	4-087-822-41	LABEL,CONTROL(AV)	
106	*	4-087-823-31	LABEL, CONTROL(BUTTON)	

REF. NO.		PART NO.	DESCRIPTION	REMARK
107	*	4-087-797-01	GUIDE, LIGHT	
108		4-087-491-01	SPRING (DOOR)	
109		1-825-930-11	LOUD SPEAKER (5.5X13cm)	
#1		7-685-648-79	SCREW +BVTP 3X12 TYPE2 TT(B)	
#3		7-685-661-91	SCREW +BVTP 4X12 TYPE2 TT(B)	

SECTION 8
ELECTRICAL PARTS LIST

A

The components identified by shading and mark ⚠ are critial for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- The components identified by in ⧓ this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- CAPACITORS
  PF : μμ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF. NO.	PART NO.	DESCRIPTION			REMARK
*	A-1058-210-A	A BOARD, COMPLETE			
		**********			
*	4-040-983-31	TERMINAL BOARD (D)			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		< CAPACITOR >			
C001	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C002	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C003	1-126-964-11	ELECT	10μF	20%	50V
C004	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C005	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C007	1-137-378-11	MYLAR	0.22μF	5%	50V
C008	1-137-378-11	MYLAR	0.22μF	5%	50V
C009	1-130-475-00	MYLAR	0.0022μF	5%	50V
C010	1-162-968-11	CERAMIC CHIP	0.0047μF	10%	50V
C011	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C012	1-126-933-11	ELECT	100μF	20%	16V
C013	1-126-960-11	ELECT	1μF	20%	50V
C014	1-126-961-11	ELECT	2.2μF	20%	50V
C015	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C016	1-130-495-00	MYLAR	0.1μF	5%	50V
C017	1-137-367-11	MYLAR	0.0033μF	5%	50V
C018	1-107-824-11	CERAMIC	220PF	5%	1KV
C019	1-126-964-11	ELECT	10μF	20%	50V
C020	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C021	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C022	1-164-733-11	CERAMIC CHIP	820PF	10%	50V
C023	1-126-961-11	ELECT	2.2μF	20%	50V
C026	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C027	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C030	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C031	1-126-933-11	ELECT	100μF	20%	16V
C032	1-164-363-11	CERAMIC CHIP	560PF	5%	50V
C033	1-136-159-00	FILM	0.033μF	5%	50V
C034	1-126-947-11	ELECT	47μF	20%	35V
C035	1-130-495-00	MYLAR	0.1μF	5%	50V
C036	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C037	1-126-957-11	ELECT	0.22μF	20%	50V
C038	1-107-714-11	ELECT	10μF	20%	50V
C039	1-126-933-11	ELECT	100μF	20%	16V
C040	1-164-227-11	CERAMIC CHIP	0.022μF	10%	25V
C041	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C042	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C043	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C044	1-101-884-00	CERAMIC	56PF	5%	50V
C045	1-101-884-00	CERAMIC	56PF	5%	50V
C046	1-126-964-11	ELECT	10μF	20%	50V
C047	1-126-956-91	ELECT	0.1μF	20%	50V
C048	1-126-961-11	ELECT	2.2μF	20%	50V
C049	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C052	1-162-968-11	CERAMIC CHIP	0.0047μF	10%	50V
C053	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C054	1-164-733-11	CERAMIC CHIP	820PF	10%	50V
C056	1-162-967-11	CERAMIC CHIP	0.0033μF	10%	50V
C057	1-126-948-11	ELECT	100μF	20%	35V
C058	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C059	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C060	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C101	1-102-129-00	CERAMIC	0.01μF	10%	50V
C102	1-162-968-11	CERAMIC CHIP	0.0047μF	10%	50V
C103	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C104	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C106	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C107	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C108	1-126-964-11	ELECT	10μF	20%	50V
C109	1-136-161-00	FILM	0.047μF	5%	50V
C110	1-136-161-00	FILM	0.047μF	5%	50V
C111	1-136-497-81	FILM	0.1μF	5%	50V
C112	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C113	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C114	1-126-933-11	ELECT	100μF	20%	16V
C115	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C116	1-126-963-11	ELECT	4.7μF	20%	50V
C117	1-164-227-11	CERAMIC CHIP	0.022μF	10%	25V
C118	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C119	1-126-933-11	ELECT	100μF	20%	16V
C120	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C121	1-137-150-11	MYLAR	0.01μF	5%	100V
C122	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C123	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C124	1-126-933-11	ELECT	100μF	20%	16V
C501	1-107-651-11	ELECT	4.7μF	20%	250V
C502	1-162-115-00	CERAMIC	330PF	10%	2KV
C503	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C504	1-104-709-11	ELECT	4.7μF		160V
C505	1-109-844-11	FILM	0.68μF	5%	400V
C507	1-115-522-11	FILM	1μF	5%	250V
C508	1-126-933-11	ELECT	100μF	20%	16V
C509	1-126-947-11	ELECT	47μF	20%	35V
C510	1-117-661-71	FILM	0.15μF	5%	250V
C511	1-102-228-00	CERAMIC	470PF	10%	500V
C512	1-106-383-00	MYLAR	0.047μF	10%	200V
C515	1-123-024-21	ELECT	33μF		160V
C517	⚠ 1-117-651-11	FILM	20000PF	3%	1.2KV
C518	1-129-723-00	FILM	0.056μF	5%	630V
C520	1-106-395-00	MYLAR	0.15μF	10%	200V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.		PART NO.	DESCRIPTION			REMARK
C521		1-107-645-11	ELECT	22µF	20%	200V
C523		1-136-502-11	MYLAR	0.33µF	5%	50V
C525		1-126-960-11	ELECT	1µF	20%	50V
C526		1-102-112-00	CERAMIC	330PF	10%	50V
C527		1-162-318-11	CERAMIC	0.001µF	10%	500V
C533		1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C535		1-102-228-00	CERAMIC	470PF	10%	500V
C536		1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C551		1-126-935-11	ELECT	470µF	20%	16V
C553		1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C556		1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C557		1-104-666-11	ELECT	220µF	20%	25V
C558		1-126-967-11	ELECT	47µF	20%	50V
C559		1-107-903-11	ELECT	2.2µF	20%	50V
C560		1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C561		1-126-941-11	ELECT	470µF	20%	25V
C562		1-107-911-11	ELECT	220µF	20%	50V
C563		1-136-171-00	FILM	0.33µF	5%	50V
C564		1-126-941-11	ELECT	470µF	20%	25V
C565		1-130-495-00	MYLAR	0.1µF	5%	50V
C566		1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C569		1-106-220-00	MYLAR	0.1µF	10%	100V
C570		1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C571		1-126-960-11	ELECT	1µF	20%	50V
C572		1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C575		1-126-963-11	ELECT	4.7µF	20%	50V
C576		1-130-777-00	MYLAR	0.1µF	5%	100V
C601		1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C602		1-164-363-11	CERAMIC CHIP	560PF	5%	50V
C603		1-161-830-00	CERAMIC	0.0047µF	99%	500V
C604		1-161-830-00	CERAMIC	0.0047µF	99%	500V
C605		1-161-830-00	CERAMIC	0.0047µF	99%	500V
C606		1-161-830-00	CERAMIC	0.0047µF	99%	500V
C607		1-126-967-11	ELECT	47µF	20%	50V
C608		1-165-539-11	FILM	0.22µF	10%	275V
C609		1-137-673-11	ELECT	330µF	20%	450V
C610		1-107-431-91	CERAMIC	0.0047µF	10%	1KV
C611		1-104-570-11	CERAMIC	0.001µF	10%	2KV
C612		1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C613		1-162-114-00	CERAMIC	4700PF		1KV
C614		1-107-824-11	CERAMIC	220PF	5%	1KV
C615		1-130-495-00	MYLAR	0.1µF	5%	50V
C616		1-126-947-11	ELECT	47µF	20%	35V
C617		1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C618		1-107-932-11	ELECT	47µF	20%	100V
C619	⚠	1-119-888-51	CERAMIC	2200PF	20%	250V
C631		1-117-703-11	CERAMIC	0.0047µF	99%	250V
C632	⚠	1-109-835-11	MYLAR	0.68µF	20%	250V
C633	⚠	1-165-530-11	MYLAR	0.47µF	10	275V
C651		1-102-228-00	CERAMIC	470PF	10%	500V
C652		1-104-658-91	ELECT	100µF	20%	10V
C653		1-102-228-00	CERAMIC	470PF	10%	500V
C654		1-107-995-11	ELECT	100µF		160V
C656		1-126-949-11	ELECT	220µF	20%	35V
C657		1-104-658-91	ELECT	100µF	20%	10V
C658		1-102-228-00	CERAMIC	470PF	10%	500V
C661		1-128-547-11	ELECT	6800µF	20%	16V
C662		1-126-934-11	ELECT	220µF	20%	16V
C663		1-126-941-11	ELECT	470µF	20%	25V
C664		1-126-923-91	ELECT	220µF	20%	10V
C665		1-102-228-00	CERAMIC	470PF	10%	500V
C666		1-128-550-11	ELECT	2200µF	20%	50V
C1201		1-126-947-11	ELECT	47µF	20%	35V
C1203		1-126-957-11	ELECT	0.22µF	20%	50V
C1204		1-126-933-11	ELECT	100µF	20%	16V
C1205		1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V

< CONNECTOR >

CN001	*	1-785-608-11	PIN, CONNECTOR 4P	
CN002	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN004	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN101		1-695-915-11	TAB (CONTACT)	
CN102		1-695-915-11	TAB (CONTACT)	
CN411	*	1-564-511-11	PLUG, CONNECTOR 8P	
CN412	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN501	*	1-564-508-11	PLUG, CONNECTOR 5P	
CN502	*	1-580-798-11	CONNECTOR PIN (DY) 6P	
CN503		1-695-915-11	TAB (CONTACT)	
CN504	*	1-564-506-11	PLUG, CONNECTOR 3P	
CN505	*	1-564-510-11	PLUG, CONNECTOR 7P	
CN601	*	1-580-843-11	PIN, CONNECTOR (POWER)	
CN603	*	1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P	
CN631	*	1-580-843-11	PIN, CONNECTOR (POWER)	
CN632		1-695-915-11	TAB (CONTACT)	
CN633	*	1-580-843-11	PIN, CONNECTOR (POWER)	
CN911	*	1-564-515-11	PLUG, CONNECTOR 12P	

< DIODE >

D001	8-719-991-33	DIODE	1SS133T-77
D002	8-719-991-33	DIODE	1SS133T-77
D003	8-719-991-33	DIODE	1SS133T-77
D004	8-719-991-33	DIODE	1SS133T-77
D006	8-719-929-15	DIODE	HZS9.1NB2
D007	8-719-991-33	DIODE	1SS133T-77
D008	8-719-995-63	DIODE	HZ6C3
D011	8-719-109-72	DIODE	RD3.9ESB2
D012	8-719-991-33	DIODE	1SS133T-77
D013	8-719-991-33	DIODE	1SS133T-77
D014	8-719-991-33	DIODE	1SS133T-77
D016	8-719-063-70	DIODE	D1NL20U-TA
D017	8-719-991-33	DIODE	1SS133T-77
D018	8-719-991-33	DIODE	1SS133T-77
D019	6-500-028-01	DIODE	MM3Z9V1ST1
D020	6-500-028-01	DIODE	MM3Z9V1ST1
D021	6-500-028-01	DIODE	MM3Z9V1ST1
D022	6-500-019-01	DIODE	MM3Z3V9ST1
D102	8-719-421-40	DIODE	MA77-TX
D501	8-719-945-80	DIODE	ERC06-15S
D502	8-719-312-10	DIODE	RU4AM-T3
D503	8-719-979-58	DIODE	EGP10DPKG23
D504	8-719-110-08	DIODE	RD8.2ESB2
D505	8-719-921-19	DIODE	1SS119-25TG
D506	8-719-991-33	DIODE	1SS133T-77
D507	8-719-908-03	DIODE	GP08D
D508	8-719-908-03	DIODE	GP08D
D511	8-719-302-43	DIODE	EL1Z
D551	8-719-991-33	DIODE	1SS133T-77
D554	8-719-979-58	DIODE	EGP10DPKG23
D555	8-719-302-43	DIODE	EL1Z
D557	8-719-110-31	DIODE	RD12ESB2
D558	8-719-908-03	DIODE	GP08D
D601	8-719-510-53	DIODE	D4SB60L
D602	8-719-991-33	DIODE	1SS133T-77

A

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
D603	8-719-050-84	DIODE RB441Q-40T-77	
D604	8-719-979-85	DIODE EGP20G	
D605	8-719-991-33	DIODE 1SS133T-77	
D606	8-719-991-33	DIODE 1SS133T-77	
D607	8-719-110-49	DIODE RD18ESB2	
D608	8-719-979-85	DIODE EGP20G	
D609	8-719-979-85	DIODE EGP20G	
D610	8-719-979-85	DIODE EGP20G	
D614	8-719-991-33	DIODE 1SS133T-77	
D651	8-719-109-93	DIODE RD6.2ESB2	
D652	8-719-312-10	DIODE RU4AM-T3	
D653	8-719-979-85	DIODE EGP20G	
D654	8-719-979-85	DIODE EGP20G	
D657	8-719-979-50	DIODE EGP30D	
		< FUSE >	
F631 ⚠	1-533-471-11	FUSE 4A 250V	
		< FERRITE BEAD >	
FB101	1-410-397-21	FERRITE 1.1µH	
FB501	1-543-298-11	FERRITE 0µH	
FB601	1-410-396-41	FERRITE 0.45µH	
FB602	1-410-396-41	FERRITE 0.45µH	
FB603	1-410-396-41	FERRITE 0.45µH	
FB604	1-410-396-41	FERRITE 0.45µH	
FB605	1-410-397-21	FERRITE 1.1µH	
FB651	1-410-397-21	FERRITE 1.1µH	
FB652	1-410-397-21	FERRITE 1.1µH	
FB654	1-410-397-21	FERRITE 1.1µH	
FB655	1-410-397-21	FERRITE 1.1µH	
FH631	1-533-223-11	FUSE HOLDER 0A 0V	
FH632	1-533-223-11	FUSE HOLDER 0A 0V	
		< IC >	
IC001	6-704-604-01	IC M24C08-WMN6T(B)	
IC101	8-759-157-40	IC UPC574J	
IC103	6-804-473-01	IC TDA9373PS/N2/AI	
IC103	6-804-477-01	IC TDA9373PS/N2/AI/1445	
IC551	8-759-339-59	IC TDA8177	
IC601	6-706-506-01	IC STR-G9656	
IC651 ⚠	8-749-016-81	PHOTO COUPLER PC123Y22	
IC652	8-759-231-53	IC TA7805S	
IC653	8-759-445-59	IC BA033T	
IC654	8-759-231-55	IC TA7808S	
IC655	8-759-231-53	IC TA7805S	
		< JUMPER RESISTOR >	
JR2	1-216-864-11	SHORT CHIP 0	
JR3	1-216-864-11	SHORT CHIP 0	
JR4	1-216-864-11	SHORT CHIP 0	
JR5	1-216-864-11	SHORT CHIP 0	
JR6	1-216-295-91	SHORT CHIP 0	
JR7	1-216-295-91	SHORT CHIP 0	
JR9	1-216-295-91	SHORT CHIP 0	
JR13	1-216-295-91	SHORT CHIP 0	
JR14	1-216-864-11	SHORT CHIP 0	
JR15	1-216-864-11	SHORT CHIP 0	
JR17	1-216-864-11	SHORT CHIP 0	
JR551	1-216-864-11	SHORT CHIP 0	
JR552	1-216-864-11	SHORT CHIP 0	
		< COIL >	
L101	1-414-142-11	INDUCTOR 1µH	
L102	1-410-509-11	INDUCTOR 10µH	
L103	1-410-509-11	INDUCTOR 10µH	
L104	1-410-521-11	INDUCTOR 100µH	
L147	1-414-183-41	INDUCTOR 10µH	
L149	1-414-183-41	INDUCTOR 10µH	
L502	1-433-850-21	TRANSFORMER, HORIZONTAL LINEAR	
L503	1-406-987-21	INDUCTOR 4.7mH	
L504	1-412-552-11	INDUCTOR 2.2mH	
L505	1-406-663-21	INDUCTOR 47µH	
L505	1-406-663-21	INDUCTOR 47µH	
L506	1-406-677-11	INDUCTOR 10mH	
L506	1-406-677-11	INDUCTOR 10mH	
L507	1-406-977-61	INDUCTOR 100µH	
L508	1-412-525-31	INDUCTOR 10µH	
L603 ⚠	1-419-653-11	INDUCTOR 56mH	
L631 ⚠	1-429-707-12	TRANSFORMER, LINE FILTER	
L632 ⚠	1-431-182-11	TRANSFORMER, LINE FILTER	
L1201	1-414-182-11	INDUCTOR 6.8µH	
L1202	1-410-509-11	INDUCTOR 10µH	
L1212	1-414-182-11	INDUCTOR 6.8µH	
		< IC LINK >	
PS501	1-533-595-52	IC LINK 3.15A 90V	
		< TRANSISTOR >	
Q001	8-729-010-25	TRANSISTOR MSD601-RT1	
Q002	8-729-010-25	TRANSISTOR MSD601-RT1	
Q003	8-729-010-25	TRANSISTOR MSD601-RT1	
Q005	8-729-010-05	TRANSISTOR MSB709-RT1	
Q006	8-729-010-05	TRANSISTOR MSB709-RT1	
Q007	8-729-010-25	TRANSISTOR MSD601-RT1	
Q101	8-729-022-54	TRANSISTOR 2SC3779C,D-AA	
Q112	8-729-010-25	TRANSISTOR MSD601-RT1	
Q113	8-729-010-25	TRANSISTOR MSD601-RT1	
Q114	8-729-010-25	TRANSISTOR MSD601-RT1	
Q501	8-729-010-25	TRANSISTOR MSD601-RT1	
Q502	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q503	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q504	6-550-020-01	TRANSISTOR 2SD2634-CA	
Q504	6-550-845-01	TRANSISTOR TT2142	
Q505	8-729-112-85	TRANSISTOR 2SA1330-T1O6	
Q511	8-729-205-11	TRANSISTOR 2SC1815Y-TPE2	
Q512	8-729-231-13	TRANSISTOR 2SA1015TP-Y	
Q513	8-729-010-25	TRANSISTOR MSD601-RT1	
Q552	8-729-010-25	TRANSISTOR MSD601-RT1	
Q601	8-729-010-05	TRANSISTOR MSB709-RT1	
Q602	8-729-140-96	TRANSISTOR 2SD774-34	
Q651	8-729-010-25	TRANSISTOR MSD601-RT1	
Q1201	8-729-010-25	TRANSISTOR MSD601-RT1	
Q1202	8-729-010-25	TRANSISTOR MSD601-RT1	
Q1203	8-729-010-25	TRANSISTOR MSD601-RT1	
Q1204	8-729-010-25	TRANSISTOR MSD601-RT1	
Q1205	8-729-010-25	TRANSISTOR MSD601-RT1	

REF. NO.	PART NO.	DESCRIPTION			REMARK
		< RESISTOR >			
R001	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R002	1-216-809-11	METAL CHIP	100	5%	1/10W
R003	1-216-833-11	METAL CHIP	10K	5%	1/10W
R004	1-216-833-11	METAL CHIP	10K	5%	1/10W
R005	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R006	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R007	1-216-809-11	METAL CHIP	100	5%	1/10W
R008	1-216-809-11	METAL CHIP	100	5%	1/10W
R009	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R010	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R011	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R012	1-216-809-11	METAL CHIP	100	5%	1/10W
R013	1-216-809-11	METAL CHIP	100	5%	1/10W
R014	1-216-821-11	METAL CHIP	1K	5%	1/10W
R015	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R016	1-216-809-11	METAL CHIP	100	5%	1/10W
R017	1-216-809-11	METAL CHIP	100	5%	1/10W
R018	1-216-809-11	METAL CHIP	100	5%	1/10W
R019	1-216-821-11	METAL CHIP	1K	5%	1/10W
R020	1-216-809-11	METAL CHIP	100	5%	1/10W
R021	1-216-809-11	METAL CHIP	100	5%	1/10W
R022	1-216-835-11	METAL CHIP	15K	5%	1/10W
R023	1-216-809-11	METAL CHIP	100	5%	1/10W
R024	1-216-809-11	METAL CHIP	100	5%	1/10W
R025	1-216-813-11	METAL CHIP	220	5%	1/10W
R026	1-216-846-11	METAL CHIP	120K	5%	1/10W
R027	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R028	1-216-840-11	METAL CHIP	39K	5%	1/10W
R029	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R030	1-216-809-11	METAL CHIP	100	5%	1/10W
R031	1-216-809-11	METAL CHIP	100	5%	1/10W
R032	1-216-809-11	METAL CHIP	100	5%	1/10W
R033	1-216-809-11	METAL CHIP	100	5%	1/10W
R034	1-216-809-11	METAL CHIP	100	5%	1/10W
R035	1-216-809-11	METAL CHIP	100	5%	1/10W
R039	1-216-809-11	METAL CHIP	100	5%	1/10W
R040	1-216-809-11	METAL CHIP	100	5%	1/10W
R041	1-216-837-11	METAL CHIP	22K	5%	1/10W
R042	1-216-839-11	METAL CHIP	33K	5%	1/10W
R043	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R044	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R046	1-216-845-11	METAL CHIP	100K	5%	1/10W
R047	1-216-816-11	METAL CHIP	390	5%	1/10W
R048	1-216-835-11	METAL CHIP	15K	5%	1/10W
R049	1-216-809-11	METAL CHIP	100	5%	1/10W
R050	1-216-809-11	METAL CHIP	100	5%	1/10W
R051	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R052	1-216-853-11	METAL CHIP	470K	5%	1/10W
R053	1-218-881-11	METAL CHIP	27K	0.5%	1/10W
R054	1-216-860-11	METAL CHIP	1.8M	5%	1/10W
R056	1-216-833-11	METAL CHIP	10K	5%	1/10W
R057	1-216-841-11	METAL CHIP	47K	5%	1/10W
R058	1-216-833-11	METAL CHIP	10K	5%	1/10W
R059	1-216-841-11	METAL CHIP	47K	5%	1/10W
R060	1-216-833-11	METAL CHIP	10K	5%	1/10W
R061	1-216-833-11	METAL CHIP	10K	5%	1/10W
R062	1-216-833-11	METAL CHIP	10K	5%	1/10W
R063	1-216-833-11	METAL CHIP	10K	5%	1/10W
R064	1-216-809-11	METAL CHIP	100	5%	1/10W
R065	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R066	1-216-864-11	SHORT CHIP	0		

REF. NO.	PART NO.	DESCRIPTION			REMARK
R071	1-260-352-11	CARBON	100K	5%	1/2W
R072	1-216-833-11	METAL CHIP	10K	5%	1/10W
R073	1-218-831-11	METAL CHIP	220	0.5%	1/10W
R076	1-218-903-11	METAL CHIP	220K	0.5%	1/10W
R077	1-216-857-11	METAL CHIP	1M	5%	1/10W
R078	1-216-850-11	METAL CHIP	270K	5%	1/10W
R079	1-249-389-11	CARBON	4.7	5%	1/4W
R080	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R081	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R082	1-249-417-11	CARBON	1K	5%	1/4W
R083	1-218-285-11	METAL CHIP	75	5%	1/10W
R084	1-218-285-11	METAL CHIP	75	5%	1/10W
R085	1-218-285-11	METAL CHIP	75	5%	1/10W
R086	1-249-417-11	CARBON	1K	5%	1/4W
R087	1-216-858-11	METAL CHIP	1.2M	5%	1/10W
R100	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R102	1-216-817-11	METAL CHIP	470	5%	1/10W
R103	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R104	1-216-817-11	METAL CHIP	470	5%	1/10W
R105	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R106	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R107	1-216-807-11	METAL CHIP	68	5%	1/10W
R108	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R109	1-216-806-11	METAL CHIP	56	5%	1/10W
R110	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R113	1-216-844-11	METAL CHIP	82K	5%	1/10W
R114	1-216-842-11	METAL CHIP	56K	5%	1/10W
R117	1-216-864-11	SHORT CHIP	0		
R118	1-216-837-11	METAL CHIP	22K	5%	1/10W
R119	1-216-837-11	METAL CHIP	22K	5%	1/10W
R120	1-249-430-11	CARBON	12K	5%	1/4W
R121	1-215-924-00	METAL OXIDE	15K	5%	3W
R122	1-216-833-11	METAL CHIP	10K	5%	1/10W
R124	1-216-835-11	METAL CHIP	15K	5%	1/10W
R125	1-216-842-11	METAL CHIP	56K	5%	1/10W
R126	1-216-819-11	METAL CHIP	680	5%	1/10W
R127	1-216-821-11	METAL CHIP	1K	5%	1/10W
R128	1-216-851-11	METAL CHIP	330K	5%	1/10W
R129	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R187	1-216-833-11	METAL CHIP	10K	5%	1/10W
R501	1-216-844-11	METAL CHIP	82K	5%	1/10W
R502	1-216-817-11	METAL CHIP	470	5%	1/10W
R503	1-247-750-11	CARBON	680	5%	1/2W
R504	1-215-884-21	METAL OXIDE	47	5%	2W
R505	1-215-917-21	METAL OXIDE	1K	5%	3W
R507	1-249-411-11	CARBON	330	5%	1/4W
R508	1-215-913-11	METAL OXIDE	220	5%	3W
R509	1-215-913-11	METAL OXIDE	220	5%	3W
R510	1-249-401-11	CARBON	47	5%	1/4W
R511	1-216-389-11	METAL OXIDE	1	5%	3W
R512	1-249-418-11	CARBON	1.2K	5%	1/4W
R513	1-260-126-11	CARBON	180K	5%	1/2W
R514	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R515	1-260-125-11	CARBON	150K	5%	1/2W
R516	1-216-842-11	METAL CHIP	56K	5%	1/10W
R517	1-216-842-11	METAL CHIP	56K	5%	1/10W
R518	1-215-917-21	METAL OXIDE	1K	5%	3W
R520	1-247-843-11	CARBON	3.3K	5%	1/4W
R521	1-260-288-11	CARBON	0.47	5%	1/2W
R522	1-260-127-11	CARBON	220K	5%	1/2W
R523	1-215-445-00	METAL	10K	1%	1/4W
R524	1-215-445-00	METAL	10K	1%	1/4W
R525	1-215-445-00	METAL	10K	1%	1/4W

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Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
R526	1-215-431-00	METAL	2.7K	1%	1/4W
R527	1-247-760-11	CARBON	4.7K	5%	1/2W
R528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R529	1-215-869-11	METAL OXIDE	1K	5%	1W
R530	1-216-864-11	SHORT CHIP	0		
R531	1-216-821-11	METAL CHIP	1K	5%	1/10W
R536	1-216-838-11	METAL CHIP	27K	5%	1/10W
R537	1-215-873-00	METAL OXIDE	4.7K	5%	1W
R538	1-243-707-21	METAL OXIDE	3.3K	5%	1W
R549	1-216-864-11	SHORT CHIP	0		
R550	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R551	1-218-873-11	METAL CHIP	12K	0.5%	1/10W
R553	1-218-345-11	METAL CHIP	9.1K	5%	1/10W
R554	1-216-833-11	METAL CHIP	10K	5%	1/10W
R555	1-249-413-11	CARBON	470	5%	1/4W
R558	1-243-540-21	METAL OXIDE	1	5%	2W
R559	1-260-288-11	CARBON	0.47	5%	1/2W
R560	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R562	1-249-383-11	CARBON	1.5	5%	1/4W
R563	1-218-869-11	METAL CHIP	8.2K	0.5%	1/10W
R564	1-243-535-21	METAL OXIDE	220	5%	3W
R565	1-249-377-11	CARBON	0.47	5%	1/4W
R566	1-218-873-11	METAL CHIP	12K	0.5%	1/10W
R568	1-216-833-11	METAL CHIP	10K	5%	1/10W
R569	1-216-841-11	METAL CHIP	47K	5%	1/10W
R570	1-216-821-11	METAL CHIP	1K	5%	1/10W
R575	1-216-839-11	METAL CHIP	33K	5%	1/10W
R594	1-218-901-11	METAL CHIP	180K	0.5%	1/10W
R595	1-218-892-11	METAL CHIP	75K	0.5%	1/10W
R601	1-215-877-11	METAL OXIDE	22K	5%	1W
R602	1-215-877-11	METAL OXIDE	22K	5%	1W
R604	1-249-425-11	CARBON	4.7K	5%	1/4W
R605	1-216-430-11	METAL OXIDE	390	5%	1W
R606	1-215-877-11	METAL OXIDE	22K	5%	1W
R607	1-215-877-11	METAL OXIDE	22K	5%	1W
R608	1-249-415-11	CARBON	680	5%	1/4W
R609	1-217-579-00	METAL	0.27	10%	2W
R610	1-217-579-00	METAL	0.27	10%	2W
R611	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R612	1-215-902-11	METAL OXIDE	47K	5%	2W
R613	1-249-429-11	CARBON	10K	5%	1/4W
R614	1-249-389-11	CARBON	4.7	5%	1/4W
R615	1-249-389-11	CARBON	4.7	5%	1/4W
R616	1-247-843-11	CARBON	3.3K	5%	1/4W
R617 ⚠	1-202-728-00	SOLID	5.6M	10%	1/2W
R618 ⚠	1-202-728-00	SOLID	5.6M	10%	1/2W
R620	1-247-807-31	CARBON	100	5%	1/4W
R621	1-247-807-31	CARBON	100	5%	1/4W
R631	1-219-510-11	METAL	470K	5%	1/2W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W
R652	1-260-125-11	CARBON	150K	5%	1/2W
R653	1-260-123-11	CARBON	100K	5%	1/2W
R654	1-225-627-91	RES, VAR, ADJ, CERMET 2K			
R655	1-249-425-11	CARBON	4.7K	5%	1/4W
R661	1-249-377-11	CARBON	0.47	5%	1/4W
R662	1-249-377-11	CARBON	0.47	5%	1/4W
R664	1-249-377-11	CARBON	0.47	5%	1/4W
R665	1-249-377-11	CARBON	0.47	5%	1/4W
R666	1-243-562-21	METAL OXIDE	68	5%	2W
R667	1-249-388-11	CARBON	3.9	5%	1/4W
R1202	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1203	1-216-812-11	METAL CHIP	180	5%	1/10W
R1204	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1205	1-216-809-11	METAL CHIP	100	5%	1/10W
R1206	1-216-806-11	METAL CHIP	56	5%	1/10W
R1207	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R1208	1-216-815-11	METAL CHIP	330	5%	1/10W
R1209	1-216-809-11	METAL CHIP	100	5%	1/10W
R1210	1-216-816-11	METAL CHIP	390	5%	1/10W
R1211	1-216-813-11	METAL CHIP	220	5%	1/10W
R1212	1-216-809-11	METAL CHIP	100	5%	1/10W
R1213	1-216-813-11	METAL CHIP	220	5%	1/10W
R1214	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R1215	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1216	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1217	1-216-813-11	METAL CHIP	220	5%	1/10W
R1501	1-249-389-11	CARBON	4.7	5%	1/4W
R1502	1-215-911-11	METAL OXIDE	100	5%	3W
R1503	1-215-911-11	METAL OXIDE	100	5%	3W
R1504	1-215-908-00	METAL OXIDE	33	5%	3W
R1505	1-215-447-00	METAL	12K	1%	1/4W
R1506	1-215-447-00	METAL	12K	1%	1/4W
		< RELAY >			
RY601 ⚠	1-755-318-11	RELAY, POWER			
		< SWITCH >			
S501	1-572-707-11	SWITCH, LEVER			
S502	1-572-707-11	SWITCH, LEVER			
		< TRANSFORMER >			
T501	1-433-836-11	TRANSFORMER, HORIZONTAL DRIVE			
T502 ⚠	1-453-284-11	FBT ASSY, NX-6020//M3J4			
T503	1-426-981-11	TRANSFORMER, FERRITE (PMT)			
T601 ⚠	1-443-386-11	CONVERTER TRANSFORMER (SRT)			
		< THERMISTOR >			
THP601	1-803-540-11	THERMISTOR			
		< TUNER >			
TU101	1-693-658-11	TUNER			
		< VARISTOR >			
VDR631 ⚠	1-810-977-21	VARISTOR ERZV10D621			
		< VIBRATOR >			
X001	1-578-774-11	VIBRATOR, CRYSTAL			
X100	1-781-042-11	FILTER, SURFACE WAVE			
X1201	1-795-345-11	TRAP, CERAMIC (T65B)			
X1202	1-795-344-11	TRAP, CERAMIC (T60B)			
X1203	1-795-343-21	TRAP, CERAMIC (T55B)			
X1204	1-795-342-11	TRAP, CERAMIC (T4.5C)			

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.		PART NO.	DESCRIPTION			REMARK
	*	A-1058-212-A	C BOARD, COMPLETE			
			**********			
		4-382-854-01	SCREW (M3X8), P, SW (+)			
			< CAPACITOR >			
C701		1-115-350-71	CERAMIC	4700PF		2KV
C702		1-102-074-00	CERAMIC	0.001µF	10%	50V
C704		1-104-967-91	ELECT	4.7µF		250V
C708		1-102-114-00	CERAMIC	470PF	10%	50V
C709		1-102-114-00	CERAMIC	470PF	10%	50V
C710		1-102-114-00	CERAMIC	470PF	10%	50V
C712		1-102-115-00	CERAMIC	560PF	10%	50V
C713		1-102-112-00	CERAMIC	330PF	10%	50V
C714		1-102-112-00	CERAMIC	330PF	10%	50V
C716		1-126-933-11	ELECT	100µF	20%	16V
C717		1-107-651-11	ELECT	4.7µF	20%	250V
C718		1-102-106-00	CERAMIC	100PF	10%	50V
			< CONNECTOR >			
CN700		1-695-915-11	TAB (CONTACT)			
CN702		1-695-915-11	TAB (CONTACT)			
CN703	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN706		1-695-915-11	TAB (CONTACT)			
CN712	*	1-564-508-11	PLUG, CONNECTOR 5P			
			< DIODE >			
D701		8-719-991-33	DIODE	1SS133T-77		
D702		8-719-991-33	DIODE	1SS133T-77		
D703		8-719-991-33	DIODE	1SS133T-77		
D704		8-719-991-33	DIODE	1SS133T-77		
D705		8-719-991-33	DIODE	1SS133T-77		
D706		8-719-991-33	DIODE	1SS133T-77		
D707		8-719-991-33	DIODE	1SS133T-77		
D708		8-719-991-33	DIODE	1SS133T-77		
D709		8-719-991-33	DIODE	1SS133T-77		
D710		8-719-991-33	DIODE	1SS133T-77		
D711		8-719-991-33	DIODE	1SS133T-77		
D712		8-719-991-33	DIODE	1SS133T-77		
D716		8-719-991-33	DIODE	1SS133T-77		
D717		8-719-109-89	DIODE	RD5.6ESB2		
D720		8-719-908-03	DIODE	GP08D		
			< JACK >			
J701	⚠	1-451-470-21	SOCKET, CRT			
			< COIL >			
L701		1-410-667-31	INDUCTOR	22µH		
L703		1-414-186-31	INDUCTOR	33µH		
L705		1-414-186-31	INDUCTOR	33µH		
L707		1-414-187-11	INDUCTOR	47µH		
			< TRANSISTOR >			
Q701		8-729-326-11	TRANSISTOR	2SC2611		
Q702		8-729-326-11	TRANSISTOR	2SC2611		
Q703		8-729-326-11	TRANSISTOR	2SC2611		
Q704		8-729-326-11	TRANSISTOR	2SC2611		
Q705		8-729-326-11	TRANSISTOR	2SC2611		
Q706		8-729-326-11	TRANSISTOR	2SC2611		
Q707		8-729-200-17	TRANSISTOR	2SA1091-O		
Q708		8-729-200-17	TRANSISTOR	2SA1091-O		
Q709		8-729-200-17	TRANSISTOR	2SA1091-O		
Q710		8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q711		8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q712		8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q714		8-729-255-12	TRANSISTOR	2SC2551-O		
			< RESISTOR >			
R701		1-219-752-11	METAL	100K	5%	1/2W
R705		1-216-390-11	METAL OXIDE	1.2	5%	3W
R710		1-215-923-00	METAL OXIDE	10K	5%	3W
R711		1-260-328-11	CARBON	1K	5%	1/2W
R712		1-215-923-00	METAL OXIDE	10K	5%	3W
R713		1-260-330-11	CARBON	1.5K	5%	1/2W
R714		1-215-923-00	METAL OXIDE	10K	5%	3W
R715		1-260-330-11	CARBON	1.5K	5%	1/2W
R716		1-249-899-11	CARBON	100	1%	1/4W
R717		1-249-899-11	CARBON	100	1%	1/4W
R718		1-249-899-11	CARBON	100	1%	1/4W
R720		1-249-923-11	CARBON	1K	1%	1/4W
R722		1-249-923-11	CARBON	1K	1%	1/4W
R724		1-249-923-11	CARBON	1K	1%	1/4W
R725		1-249-424-11	CARBON	3.9K	5%	1/4W
R726		1-249-424-11	CARBON	3.9K	5%	1/4W
R727		1-249-424-11	CARBON	3.9K	5%	1/4W
R728		1-249-407-11	CARBON	150	5%	1/4W
R729		1-249-407-11	CARBON	150	5%	1/4W
R730		1-249-407-11	CARBON	150	5%	1/4W
R731		1-249-401-11	CARBON	47	5%	1/4W
R732		1-249-401-11	CARBON	47	5%	1/4W
R733		1-249-401-11	CARBON	47	5%	1/4W
R734		1-219-743-11	METAL	100	5%	1/2W
R738		1-247-807-31	CARBON	100	5%	1/4W
R739		1-247-807-31	CARBON	100	5%	1/4W
R740		1-247-807-31	CARBON	100	5%	1/4W
R747		1-215-926-00	METAL OXIDE	33K	5%	3W
R749		1-215-927-00	METAL OXIDE	47K	5%	3W
R751		1-215-926-00	METAL OXIDE	33K	5%	3W
R753		1-249-429-11	CARBON	10K	5%	1/4W
R755		1-249-427-11	CARBON	6.8K	5%	1/4W
R756		1-249-427-11	CARBON	6.8K	5%	1/4W
R757		1-249-427-11	CARBON	6.8K	5%	1/4W
R758		1-249-419-11	CARBON	1.5K	5%	1/4W
R759		1-249-419-11	CARBON	1.5K	5%	1/4W
R760		1-249-419-11	CARBON	1.5K	5%	1/4W
R761		1-215-912-11	METAL OXIDE	150	5%	3W
R762		1-260-132-11	CARBON	560K	5%	1/2W
			< VARIABLE RESISTOR >			
RV702	⚠	1-225-952-11	RES, ADJ, METAL FILM 110			

****

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
	* A-1067-378-B	D3 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C2803	1-129-723-00	FILM	0.056µF	5%	630V
		< CONNECTOR >			
CN2800	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN2803	1-695-915-11	TAB (CONTACT)			
		< COIL >			
L2802	1-406-987-21	INDUCTOR	4.7mH		
		< TRANSFORMER >			
T2800	1-413-059-00	TRANSFORMER, FERRITE (DFT)			
**********					
	* A-1058-214-A	H BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C901	1-126-964-11	ELECT	10µF	20%	50V
C902	1-126-964-11	ELECT	10µF	20%	50V
C903	1-126-964-11	ELECT	10µF	20%	50V
		< CONNECTOR >			
CN901	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN903	* 1-564-509-11	PLUG, CONNECTOR 6P			
CN904	* 1-564-507-11	PLUG, CONNECTOR 4P			
		< DIODE >			
D903	8-719-109-93	DIODE RD6.2ESB2			
		< TRANSISTOR >			
Q901	8-729-010-25	TRANSISTOR MSD601-RT1			
		< RESISTOR >			
R901	1-216-809-11	METAL CHIP	100	5%	1/10W
R902	1-216-809-11	METAL CHIP	100	5%	1/10W
R903	1-216-809-11	METAL CHIP	100	5%	1/10W
R904	1-218-285-11	METAL CHIP	75	5%	1/10W
R905	1-216-833-11	METAL CHIP	10K	5%	1/10W
R906	1-216-813-11	METAL CHIP	220	5%	1/10W
R908	1-216-805-11	METAL CHIP	47	5%	1/10W
R909	1-216-817-11	METAL CHIP	470	5%	1/10W
R910	1-220-373-11	METAL CHIP	620	5%	1/10W
R911	1-216-821-11	METAL CHIP	1K	5%	1/10W
R912	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R913	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
		< SWITCH >			
S901	1-571-532-21	SWITCH, TACTIL			
S902	1-571-532-21	SWITCH, TACTIL			
S903	1-571-532-21	SWITCH, TACTIL			
S904	1-571-532-21	SWITCH, TACTIL			
S905	1-571-532-21	SWITCH, TACTIL			
S906	1-571-532-21	SWITCH, TACTIL			
**********					
	* A-1058-215-A	J BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C981	1-126-947-11	ELECT	47µF	20%	35V
C982	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C983	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
		< CONNECTOR >			
CN641	* 1-580-844-11	PIN, CONNECTOR (POWER)			
CN642	* 1-580-844-11	PIN, CONNECTOR (POWER)			
CN981	* 1-564-507-11	PLUG, CONNECTOR 4P			
		< DIODE >			
D981	6-500-733-01	DIODE LNK0120037F2			
		< IC >			
IC981	6-704-532-01	IC RPM7240-H5			
		< RESISTOR >			
R981	1-216-809-11	METAL CHIP	100	5%	1/10W
R982	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
S641	⚠ 1-571-433-21	SWITCH, PUSH (AC POWER)			
**********					
	* A-1058-213-A	U BOARD, COMPLETE			
		**********			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
		< CAPACITOR >			
C401	1-110-563-11	CERAMIC CHIP	0.068µF	10%	16V
C402	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C403	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C404	1-162-969-11	CERAMIC CHIP	0.0068µF	10%	25V
C405	1-126-964-11	ELECT	10µF	20%	50V
C406	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C407	1-104-658-91	ELECT	100µF	20%	10V
C408	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C409	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C410	1-126-923-91	ELECT	220µF	20%	10V
C411	1-164-227-11	CERAMIC CHIP	0.022µF	10%	25V
C412	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C413	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C414	1-162-969-11	CERAMIC CHIP	0.0068µF	10%	25V
C415	1-126-964-11	ELECT	10µF	20%	50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C416	1-137-190-91	FILM	0.22µF	5%	50V
C417	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C422	1-136-497-81	FILM	0.1µF	5%	50V
C423	1-104-665-11	ELECT	100µF	20%	25V
C424	1-136-497-81	FILM	0.1µF	5%	50V
C426	1-126-943-11	ELECT	2200µF	20%	25V
C427	1-126-947-11	ELECT	47µF	20%	35V
C428	1-126-767-11	ELECT	1000µF	20%	16V
C429	1-126-972-11	ELECT	1000µF	20%	50V
C430	1-126-943-11	ELECT	2200µF	20%	25V
C451	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C452	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C460	1-126-963-11	ELECT	4.7µF	20%	50V
C461	1-126-935-11	ELECT	470µF	20%	16V
C921	1-126-960-11	ELECT	1µF	20%	50V
C923	1-126-960-11	ELECT	1µF	20%	50V
C924	1-126-935-11	ELECT	470µF	20%	16V
C928	1-126-964-11	ELECT	10µF	20%	50V
C929	1-126-964-11	ELECT	10µF	20%	50V
C930	1-126-947-11	ELECT	47µF	20%	35V
C931	1-126-964-11	ELECT	10µF	20%	50V
C932	1-126-964-11	ELECT	10µF	20%	50V
C933	1-126-964-11	ELECT	10µF	20%	50V
C934	1-126-960-11	ELECT	1µF	20%	50V
C935	1-126-947-11	ELECT	47µF	20%	35V
C936	1-126-964-11	ELECT	10µF	20%	50V
C937	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C939	1-126-964-11	ELECT	10µF	20%	50V
C940	1-126-964-11	ELECT	10µF	20%	50V
C941	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C942	1-126-964-11	ELECT	10µF	20%	50V
C943	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C944	1-126-933-11	ELECT	100µF	20%	16V

< CONNECTOR >

CN401	*	1-564-507-11	PLUG, CONNECTOR 4P
CN403	*	1-564-511-11	PLUG, CONNECTOR 8P
CN404	*	1-564-509-11	PLUG, CONNECTOR 6P
CN922	*	1-564-515-11	PLUG, CONNECTOR 12P
CN923	*	1-564-508-11	PLUG, CONNECTOR 5P
CN924		1-695-915-11	TAB (CONTACT)

< DIODE >

D401	8-719-929-15	DIODE HZS9.1NB2
D429	8-719-991-33	DIODE 1SS133T-77
D430	8-719-991-33	DIODE 1SS133T-77
D431	8-719-991-33	DIODE 1SS133T-77
D930	8-719-109-93	DIODE RD6.2ESB2
D931	8-719-109-93	DIODE RD6.2ESB2
D933	8-719-074-43	DIODE BAS316-115
D934	8-719-074-43	DIODE BAS316-115

< IC >

IC401	6-706-451-01	IC TDA9859
IC402	6-703-477-01	IC AN5277T
IC920	8-759-208-08	IC TC4052BPHB
IC921	8-759-208-08	IC TC4052BPHB
IC930	6-703-621-01	IC MM1506XNRE

REF. NO.	PART NO.	DESCRIPTION			REMARK
		< JUMPER RESISTOR >			
JR920	1-216-864-11	SHORT CHIP	0		
JR921	1-216-864-11	SHORT CHIP	0		
		< IC LINK >			
PS401	1-576-390-91	IC LINK	2.5A	50V	
PS402	1-576-390-91	IC LINK	2.5A	50V	
		< TRANSISTOR >			
Q420	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q422	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q427	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q429	8-729-010-05	TRANSISTOR	MSB709-RT1		
Q430	8-729-010-05	TRANSISTOR	MSB709-RT1		
Q922	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q923	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q924	8-729-010-25	TRANSISTOR	MSD601-RT1		
		< RESISTOR >			
R401	1-216-841-11	METAL CHIP	47K	5%	1/10W
R402	1-216-841-11	METAL CHIP	47K	5%	1/10W
R403	1-216-841-11	METAL CHIP	47K	5%	1/10W
R404	1-216-841-11	METAL CHIP	47K	5%	1/10W
R405	1-216-821-11	METAL CHIP	1K	5%	1/10W
R406	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R408	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R409	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R410	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-821-11	METAL CHIP	1K	5%	1/10W
R415	1-249-389-11	CARBON	4.7	5%	1/4W
R416	1-249-389-11	CARBON	4.7	5%	1/4W
R420	1-216-809-11	METAL CHIP	100	5%	1/10W
R421	1-216-821-11	METAL CHIP	1K	5%	1/10W
R422	1-216-821-11	METAL CHIP	1K	5%	1/10W
R423	1-216-821-11	METAL CHIP	1K	5%	1/10W
R424	1-216-821-11	METAL CHIP	1K	5%	1/10W
R426	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R427	1-216-841-11	METAL CHIP	47K	5%	1/10W
R428	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R429	1-216-834-11	METAL CHIP	12K	5%	1/10W
R431	1-216-833-11	METAL CHIP	10K	5%	1/10W
R433	1-216-833-11	METAL CHIP	10K	5%	1/10W
R457	1-216-833-11	METAL CHIP	10K	5%	1/10W
R458	1-216-833-11	METAL CHIP	10K	5%	1/10W
R460	1-216-841-11	METAL CHIP	47K	5%	1/10W
R461	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R462	1-216-841-11	METAL CHIP	47K	5%	1/10W
R463	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R464	1-216-845-11	METAL CHIP	100K	5%	1/10W
R465	1-216-833-11	METAL CHIP	10K	5%	1/10W
R466	1-216-833-11	METAL CHIP	10K	5%	1/10W
R921	1-216-809-11	METAL CHIP	100	5%	1/10W
R922	1-216-864-11	SHORT CHIP	0		
R923	1-216-864-11	SHORT CHIP	0		
R924	1-216-809-11	METAL CHIP	100	5%	1/10W
R925	1-218-285-11	METAL CHIP	75	5%	1/10W
R929	1-216-853-11	METAL CHIP	470K	5%	1/10W
R930	1-216-864-11	SHORT CHIP	0		

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R931	1-216-864-11	SHORT CHIP	0		
R932	1-216-809-11	METAL CHIP	100	5%	1/10W
R933	1-216-809-11	METAL CHIP	100	5%	1/10W
R934	1-249-401-11	CARBON	47	5%	1/4W
R935	1-216-809-11	METAL CHIP	100	5%	1/10W
R936	1-216-809-11	METAL CHIP	100	5%	1/10W
R937	1-216-809-11	METAL CHIP	100	5%	1/10W
R938	1-218-285-11	METAL CHIP	75	5%	1/10W
R939	1-249-401-11	CARBON	47	5%	1/4W
R940	1-218-285-11	METAL CHIP	75	5%	1/10W
R941	1-216-864-11	SHORT CHIP	0		
R942	1-218-285-11	METAL CHIP	75	5%	1/10W
R943	1-216-809-11	METAL CHIP	100	5%	1/10W
R946	1-216-853-11	METAL CHIP	470K	5%	1/10W
R948	1-216-853-11	METAL CHIP	470K	5%	1/10W
R955	1-216-841-11	METAL CHIP	47K	5%	1/10W
R956	1-216-833-11	METAL CHIP	10K	5%	1/10W
R957	1-216-821-11	METAL CHIP	1K	5%	1/10W
R958	1-216-821-11	METAL CHIP	1K	5%	1/10W

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MISCELLANEOUS
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⚠	0-000-000-00	CORD, POWER
⚠	1-419-323-11	COIL, DEGAUSSING
⚠	1-451-576-11	NECK ASSEMBLY
	1-452-032-00	MAGNET,DISC
⚠	1-452-896-11	COIL, NA ROTATION (RT-200)
	1-825-930-11	LOUDS PEAKER (5.5X13cm)
⚠	8-451-494-31	DY Y29RSA-A
⚠	8-735-020-05	CRT 29RSN

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ACCESSORIES & PACKING MATERIALS
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*	2-022-216-01	INDIVIDUAL CARTON
	2-022-561-11	MANUAL, INSTRUCTION
*	2-024-046-01	CUSHION (LOWER)
*	2-050-454-01	CUSHION (UPPER)
	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)
*	4-029-168-11	BAG, PROTECTION
	4-392-003-11	BAND, HOLD
	4-392-004-11	CLIP

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REMOTE COMMANDER
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	1-478-346-11	REMOTE COMMANDER (RM-W104)
	0-000-000-00	LID, BATTERY CASE (FOR RM-W104)

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